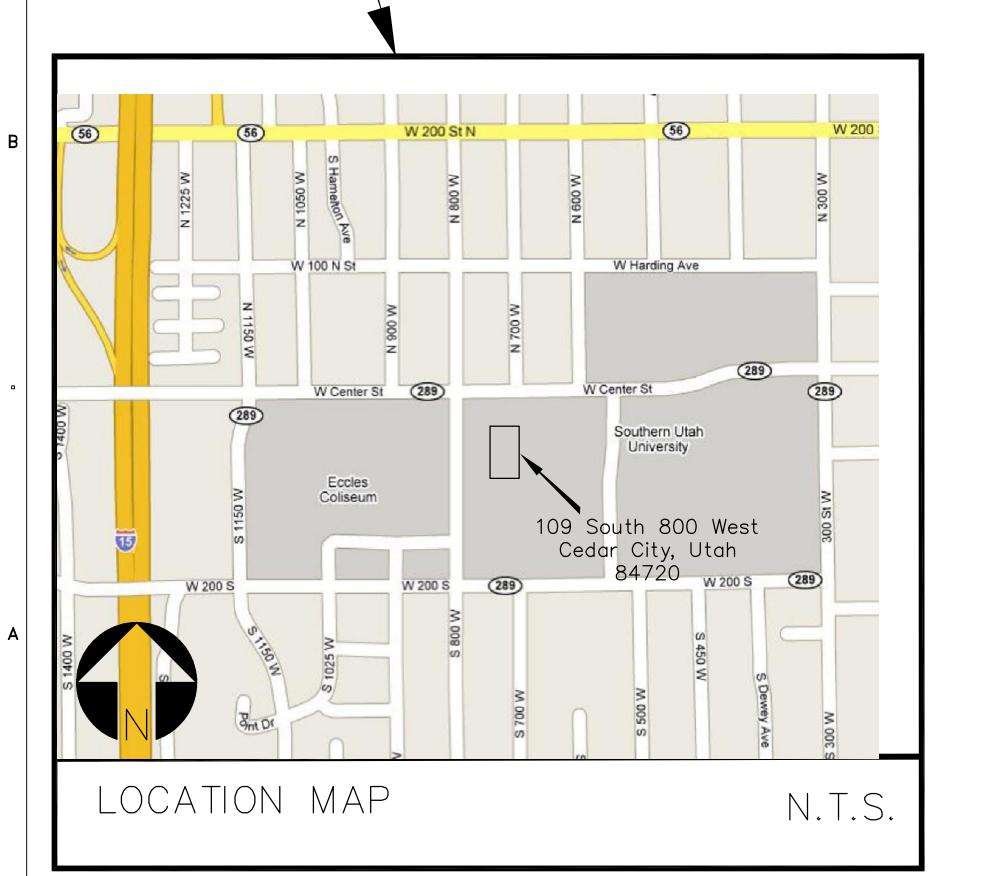


SOUTHERN UTAH UNIVERSITY DIGITAL PHOTO LAB CEDAR CITY, UTAH

DFCM PROJECT #06126730

CONSTRUCTION DOCUMENTS

OCTOBER 27, 2006



BOX ELDER

TOOELE

J U A B

PREPARED BY



architecture · planning · design services

1135 South West Temple, Ste. A Salt Lake City, UT 84101 P:(801) 961-7070 F:(801) 961-7373 Ralph Stanislaw

CONSULTANTS

MECHANICAL

Steve Wadsworth

WHW Consulting Engineers 1354 East 3300 South Suite 200 Fax: (801) 466-8536

ELECTRICAL

BNA Consulting, Inc. 1070 West 1600 South Suite A-104 Salt Lake City, Utah 84106 St. George, UT 84770 Telephone: (801) 466–4021 Telephone: (435) 628–3670 Fax: (435) 628-3680 Lawrence Rembers

CODE ANALYSIS	CLIENT	
CODE ANALIGIO	SC	_)[
APPLICABLE CODES		l
Year Year	UN	<u> </u>
International Building Code2003 National Electrical Code2002 International Mechanical Code2003 Uniform Code for	DIGIT	
International Plumbing Code 2003 Building Conservation N.A. N.A. ADA Accessibility	UNIVERS STATE 109	: B
International Energy Guildelines	CEDAR	
Conservation Code	DESIGNER	
A. Occupancy and Group:B		_
Change in Use: Yes Nox Mixed Occupancy: Yes Nox Special Use and Occupancy (e.g. High Rise, Covered Mall):N.A		
B. Seismic Design Category:N.A Design Wind Speed:N.A mph	architecture of	
C. Type of Construction (circle one):	Salt I P:	_ak (80
$egin{array}{cccccccccccccccccccccccccccccccccccc$	F:	(80
D. Fire Resistance Rating Requirements for the Exterior Walls based on the fire	CONSULTANTS	
separation distance (in hours):		
North:0_ South:0_ East:0_ West:0_		
E. Mixed Occupancies: <u>NO</u> Nonseparated Uses: <u>NO</u>		
F: Sprinklers:		
Required: NO Provided: NO Type of Sprinkler System: NA		
G: Number of Stories: Building Height: Exst		
H: Actual Area per Floor (square feet):		
I: Tabular Area: 9000 SF		
J: Area Modifications:		
a) $A_a = A_t + \left[\frac{A_t I_f}{100} \right] + \left[\frac{A_t I_s}{100} \right]$ $I_f = 100 \left[\frac{F}{P} - 0.25 \right] \frac{W}{30}$		
$9,000 \text{ SF} = 9000 + \left[\frac{9000 (0)}{100} \right] + \left[\frac{9000 (0)}{100} \right]$	PROFESSIONAL SEA	۱L
b) Sum of the Ratio Calculations for Mixed Occupancies:		
,		
$\frac{\text{Actual Area}}{\text{Allowable Area}} \le 1 \frac{2,197 \text{ SF}}{9,000 \text{ SF}} = .081$		
c) Total Allowable Area for:		
1) One Story:9,000 2) Two Story: A _a (2)9,000	ISSUE	
3) Three Story: A _a (3) N.A.		
d) Unlimited Area Building: Yes Nox_ Code Section:		
K. Fire Resistance Rating Requirements for Building Elements (hours).		
Element Hours Assembly Listing Element Hours Assembly Listing		
Exterior Bearing Walls O N.A. Floors - Ceiling Floors Interior Bearing Walls O N.A. Roofs - Ceiling Roofs O N.A. Roofs - Ceiling Roofs	MARK DATE	DE
Exterior Non-Bearing Walls O N.A. Structural Frame O N.A. Shaft Enclosures O N.A. O N.A. Shaft Enclosures O N.A. O N.A.	DFCM CONTRACT N	
Partitions - Permanent Fire Barriers O N.A. Fire Walls O N.A. Fire Partitions O N.A. Smoke Partitions O N.A. O D N.A. Smoke Partitions	DFCM PROJECT NO ARCHIPLEX PROJECT	
Smoke Partitions 0 N.A.	DRAWN BY:	
	CHECKED BY:	

Exit Width Provided: 2'-10"

Design Occupant Load: 42

Exit Width Required: 6.3"

077004
06126730
0620.01
. RUSTEN
STANISLAW
NONE

SOUTHERN

UTAH

SHEET TITLE

KEY PLAN

TITLE **SHEET**

G000

- 3. CONTRACTOR SHALL REPAIR OR REPLACE EXISTING CONSTRUCTION DAMAGED BY NEW CONSTRUCTION. MATCH EXISTING SURFACE FINISH OR MATERIAL.
- 4. CONTRACTOR SHALL INVESTIGATE THE EXISTENCE OF ANY ASBESTOS ASSOCIATED WITH AREAS OF THE BUILDING TO BE REMODELED. CONTRACTOR IS TO INSURE ALL ASBESTOS IS REMOVED FROM THESE
- 5. CUT AND PATCH EXISTING CONSTRUCTION AS REQUIRED. CUTTING AND DRILLING OF STRUCTURAL MEMBERS NOT DETAILED REQUIRES THE WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER.
- 6. CONTRACTOR SHALL MODIFY OR RELOCATE EXISTING MECHANICAL AND ELECTRICAL AS REQUIRED FOR
- 7. ALL DEMOLISHED OR REMOVED EXISTING MATERIAL SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR
- 8. EXISTING MATERIAL NOTED "TO BE RETURNED TO OWNER" SHALL BE REMOVED FROM THE SITE BY THE OWNER. CONTRACTOR SHALL COORDINATE WITH THE OWNER.
- 9. THE CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WORK WITH THE OWNER AND ARCHITECT TO MEET THE OWNERS SCHEDULE.
- 10. COORDINATE "NOISY" OPERATIONS (CONCRETE CUTTING, JACK HAMMERING, ETC.) WITH THE OWNER FOR SCHEDULING TO AVOID DISRUPTION OF DAILY OPERATIONS. NOISY WORK SHOULD OCCUR BETWEEN 4:00 PM AND 7:00 AM, MON - FRI
- 11. CONTRACTOR SHALL LEAVE WORK AREAS BROOM CLEAN AND FREE OF TOOLS, EQUIPMENT, ETC., AT THE END OF EACH SHIFT. ALL CONSTRUCTION ACTIVITY SHALL BE CONTAINED WITHIN CONSTRUCTION BARRICADES OR FENCES. CONTRACTOR SHALL PROTECT OWNERS EXISTING CONSTRUCTION AND EQUIPMENT ADJACENT TO NEW CONSTRUCTION. CONTRACTOR SHALL CLEAN ALL SURFACES TO "LIKE NEW" CONDITION AT THE COMPLETION OF WORK.
- 12. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR RESTRICTING AND CONTAINING DUST AND DEBRIS GENERATED FROM DEMOLITION AND CONSTRUCTION BY MEANS OF CHUTES, TEMPORARY PARTITIONS, OR PROTECTIVE COVERINGS.
- 13. THE INSTALLATION OF NEW MATERIALS AND EQUIPMENT SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE MATERIAL AND EQUIPMENT MANUFACTURER'S SPECIFICATIONS.
- 14. THE CONTRACTOR SHALL CHALK THE LOCATION OF PARTITIONS AND MILLWORK FOR SITE INSPECTION PRIOR TO CONSTRUCTION, FABRICATION, OR INSTALLATION.
- 15. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING GLASS SURFACES, REMOVING TRASH AND DEBRIS, REMOVING TOOLS AND TEMPORARY CONSTRUCTION MATERIALS PRIOR TO PROJECT COMPLETION.
- 16. THE SPRINKLER CONTRACTOR (IF APPLICABLE) WILL BE RESPONSIBLE FOR FINAL TIE-IN TO THE FIRE ALARM SYSTEM.
- 17. ARCHIPLEX IS RESPONSIBLE FOR ARCHITECTURAL DRAWINGS ONLY.

INSTALLATION OF NEW WORK.

- 18. THE SCOPE AND BASIS OF THE WORK SHALL INCLUDE THE CONTRACT DOCUMENTS PRESENTED BY THE ARCHITECT, MECHANICAL, ELECTRICAL, AND THE CONDITIONS FOR THE WORK AS DESCRIBED IN THE CONTRACT BETWEEN THE OWNER AND THE CONTRACTOR.
- 19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL CONSTRUCTION PROCEDURES AND JOB SITE SAFETY AND SHALL ENSURE COMPLIANCE WITH APPLICABLE CODES, RULES AND REGULATIONS OF THE GOVERNING JURISDICTION.
- 20. THE GENERAL CONTRACTOR SHALL PROVIDE PROOF OF INSURANCE FOR LIABILITY IN THE AMOUNT SET OUT BY THE OWNER.
- 21. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING BUILDING PERMITS AS REQUIRED FOR WORK AND SHALL BE RESPONSIBLE FOR OBTAINING REQUIRED INSPECTIONS DURING THE COURSE OF THE WORK. THE PERMIT OF OCCUPANCY SHALL BE CONVEYED TO THE TENANT.
- 22. THE GENERAL CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND THE SCOPE OF THE WORK BEFORE SUBMISSION OF BIDS.
- 23. THE INFORMATION CONTAINED IN THE DRAWINGS IS BASED ON EXISTING DOCUMENTS AND LIMITED FIELD MEASUREMENT. THE WORK DESCRIBED HEREIN MAY REQUIRE ADJUSTMENT OR MODIFICATION TO CONFORM TO THE EXISTING CONDITIONS. THE GENERAL CONTRACTOR SHALL VERIFY CRITICAL DIMENSIONS AND SHALL BE RESPONSIBLE FOR FIELD MEASURING EXISTING CONDITIONS PRIOR TO STARTING THE WORK AND DURING PROGRESS OF THE WORK.
- 24. THE GENERAL CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK SHOULD DISCREPANCIES BE FOUND IN THE CONTRACT DOCUMENTS. ADDITIONAL WORK OR DEMOLITION REQUIRED, AS A RESULT OF FAILURE TO DO SO SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 25. THE DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS AND/OR SIZES. THE GENERAL CONTRACTOR SHALL NOT DEVIATE FROM DIMENSIONS INDICATED ON THE DRAWINGS WITHOUT PRIOR WRITTEN APPROVAL OF THE ARCHITECT. THE CONTRACTOR SHALL VERIFY DIMENSIONS BEFORE PROCEEDING WITH PROCUREMENT OF MATERIALS REQUIRED TO BE ACCURATELY FITTED TO THE BUILDING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF MEASUREMENT AND THE PRECISE FITTING OF THE WORK.
- 26. THE GENERAL CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE, SCHEDULE OF COSTS, AND LIST OF SUBCONTRACTORS WITHIN ONE (1) WEEK AFTER CONTRACT AWARD. THE GENERAL CONTRACTOR SHALL PROVIDE SUBCONTRACTORS WITH COMPLETE SETS OF CONTRACT DOCUMENTS DURING THE BID PHASE AND DURING THE CONSTRUCTION PHASE.
- 27. SHOULD MATERIAL SUBSTITUTIONS BE REQUIRED, THE GENERAL CONTRACTOR SHALL SUBMIT A WRITTEN LIST OF SUBSTITUTIONS WITHIN ONE (1) WEEK AFTER CONTRACT AWARD. SUBSTITUTIONS SHALL NOT BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE ARCHITECT.
- 28. THE CONTRACTOR SHALL PROVIDE MATERIALS AND EQUIPMENT THAT ARE NEW AND UNDAMAGED EXCEPT FOR ITEMS SPECIFICALLY NOTED AS REUSED OR RELOCATED. DEFECTIVE OR DAMAGED ITEMS SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ARCHITECT. THE OWNER RESERVES THE RIGHT TO REJECT MATERIALS OR WORK IF THOSE ITEMS ARE NOT FOUND TO BE IN STRICT ACCORDANCE WITH THE CONTRACT DOCUMENTS.

- 30. THE GENERAL CONTRACTOR SHALL MAINTAIN A COMPLETE AND UP TO DATE SET OF CONTRACT DOCUMENTS AT THE JOB SITE.
- 31. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF CONTRACT DOCUMENTS AND FOR THE COORDINATION OF VARIOUS TRADES IN THE CONTRACT TO ASSURE THE EXPEDITIOUS COMPLETION
- 32. THE GENERAL CONTRACTOR SHALL ENSURE THAT THE WORK SHALL BE PERFORMED BY COMPETENT MECHANICS SKILLED IN THEIR TRADE. WORKMANSHIP DEEMED SUBSTANDARD OR UNACCEPTABLE BY THE ARCHITECT WILL BE REJECTED AND SHALL BE CORRECTED BY THE CONTRACTOR.
- 33. THE GENERAL CONTRACTOR SHALL CORRECT OR REPAIR EXISTING CONDITIONS THAT AFFECT THE DESIGN INTENT AND THE QUALITY OF THE FINISHED PRODUCT.
- 34. THE GENERAL CONTRACTOR SHALL REPAIR OR REPLACE DAMAGE OR THEFT OF NEW OR EXISTING CONSTRUCTION CAUSED BY THE CONTRACTOR'S NEGLIGENCE OR BY INADEQUATE PROTECTION OR SECURITY MEASURES PROVIDED DURING CONSTRUCTION.
- 35. THE GENERAL CONTRACTOR SHALL PROVIDE OPERATION AND MAINTENANCE MANUALS FOR ITEMS THAT REQUIRE PERIODIC SERVICE AND ADJUSTMENT. THE GENERAL CONTRACTOR SHALL CONVEY THE MANUALS TO THE OWNER AT SUBSTANTIAL COMPLETION.
- 36. THE GENERAL CONTRACTOR SHALL GUARANTEE UNCONDITIONALLY FOR A PERIOD OF ONE YEAR FROM THE DATE OF PERMIT OF OCCUPANCY, MATERIALS, EQUIPMENT, APPLIANCES, WORKMANSHIP AND INSTALLATION. DURING THIS PERIOD, THE CONTRACTOR SHALL ADJUST, REPAIR OR REPLACE AT NO COST TO THE OWNER, ITEMS, EQUIPMENT OR WORKMANSHIP FOUND TO BE DEFECTIVE.
- 37. THE CONTRACTOR SHALL PROVIDE THE ARCHITECT WITH A MARKED-UP SET OF DRAWINGS WITH THE APPLICATION FOR FINAL PAYMENT. THE SET WILL BE USED AS THE BASIS FOR DEVELOPING RECORD
- 38. THE CONTRACT DOCUMENTS, INCLUDING THE DRAWINGS AND ASSOCIATED DOCUMENTATION, ARE THE SOLE PROPERTY OF ARCHIPLEX GROUP. UNAUTHORIZED OR INCORRECT USE OF THESE DOCUMENTS IS
- 39. ALL DETAILS APPLY WHETHER OR NOT SPECIFICALLY REFERENCED.
- 40. UNLESS OTHERWISE NOTED, DIMENSIONING ON PLANS IS AS FOLLOWS: TO FACE OF ALL WALLS AND/OR STRUCTURAL GRID.
- 41. CONTRACTOR SHALL CROSS-CHECK DETAILS, DIMENSIONS, NOTES, AND ALL REQUIREMENTS SHOWN ON THE ARCHITECTURAL DRAWINGS WITH RELATED REQUIREMENTS SHOWN ON THE CIVIL, LANDSCAPE, INTERIOR DESIGN, MECHANICAL, PLUMBING, ELECTRICAL, SECURITY, TELECOMMUNICATIONS AND/OR OTHER ARCHITECTURAL DRAWINGS CONTAINED AS PART OF THE CONSTRUCTION DOCUMENTS OF THIS PROJECT. ANY CONFLICTS OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR
- 42. UNLESS SPECIFICALLY NOTED AS "NOT IN CONTRACT". SYSTEMS SHOWN IN DRAWINGS ARE INTENDED TO BE CODE COMPLIANT, FURNISHED, INSTALLED AND TURNED OVER TO OWNER IN PROPER FUNCTIONING CODE COMPLIANT CONDITION. ALL WORK TO ACCOMPLISH THIS MUST BE CONSIDERED IN BASE BID (I.E. CONTRACT
- 43. ALL WORK TO BE CONSTRUCTED PER GOVERNING CODES WHICH ARE HEREIN INCORPORATED INTO THESE DOCUMENTS. CODE REQUIRED WORK TO BE INCLUDED IN BASE BID (CONTRACT SUM).
- 44. OPENINGS AROUND PIPES AND OTHER PENETRATIONS THROUGH FLOORS SHALL BE PACKED WITH FIRE SAFING MATERIAL FOR DRAFT STOP PROTECTION. LARGE VOIDS IN CONCEALED SPACES SHALL BE FILLED WITH FIRE SAFING MATERIALS OVER GYPSUM WALLBOARD FORM WORK SECURED TO PERIMETER SURFACES.
- 45. ADEQUACY OF FIRE PROTECTION AND SAFETY DURING CONSTRUCTION SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY. NFPA STANDARDS NO. 10 AND 241 ARE RECOMMENDED AS WELL AS REQUIREMENTS OF
- 47. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WORK BETWEEN TRADES.
- 48. WHERE DAMAGE TO INSTALLED FINISHES OCCUR DURING CONSTRUCTION, CONTRACTOR SHALL RESTORE SUCH FINISH TO MATCH UNDAMAGED ADJACENT SURFACES.
- 50. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR LOCATION OF ALL WALL ACCESS PANELS NOT INDICATED ON ARCHITECTURAL & FOR ALL REQUIRED ACCESS PANELS. CONTRACTOR TO PROVIDE ALL CODE REQUIRED ACCESS PANELS.
- 51. EFFECTIVELY ISOLATE ALL DISSIMILAR MATERIALS TO PREVENT CORROSION BY ELECTROLYSIS ACTION OR
- 52. THERE ARE NO ASBESTOS PRODUCTS SPECIFIED AND NONE SHALL BE USED ANYWHERE ON THIS PROJECT
- 53. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION OF ALL EQUIPMENT PADS REQUIRED BY EQUIPMENT
- 54. HVAC AND ELECTRICAL EQUIPMENT SHOWN ON ARCHITECTURAL DRAWINGS ARE INDICATED FOR GENERAL
- 55. FIRE RATINGS SHALL BE MAINTAINED AT FIRE RATED PARTITIONS BY PROVIDING FIRE SAFING MATERIAL AT GAPS AND VOIDS CREATED BY PENETRATIONS, STRUCTURAL MEMBERS AND INTERSECTIONS WITH ADJACENT SURFACES. REFER TO FIRE PROTECTION LISTINGS FOR SPECIFIC ASSEMBLIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE A COMPLETE CODE COMPLIANT CONSTRUCTION.
- 56. CONTRACTOR SHALL INVESTIGATE ALL CONDITIONS AND DIMENSIONS OF THE PROJECT, AND SHALL NOTIFY ARCHITECT OR ENGINEER ABOUT ANY CONDITION REQUIRING MODIFICATIONS OR CHANGES PRIOR TO PROCEEDING WITH THE WORK.

- ADJ ADJUSTABLE ADO - AUTOMATIC DOOR OPERATOR AF - ACCESS FLOORING ALT – ALTERNATE ALUM - ALUMINUM AP - ACCESS PANEL AT - ACOUSTICAL CEILING TILE
 - AT (CL) CLEANROOM ACOUSTICAL CEILING TILE AWF - ACOUSTICAL WALL FABRIC (TACKABLE) AWP - ACOUSTICAL WALL PANEL BO — BOTTOM OF BP - BRICK PAVERS (UNIT PAVERS) BD - BOARD BIT - BITUMEN BLD - BUILDING BLK - BLOCK BLKG - BLOCKING BR - BRICK (UNIT MASONRY) BM — BEAM
 - CAB CABINET CC - COLOR CODE CEF - CONDUCTIVE ELASTOMERIC (LIQUID) FLOORING CMU - CONCRETE MASONRY UNITS (UNIT MASONRY)
 - CP CARPET (WITHOUT CUSHION BROADLOOM) CPT - CARPET TILE
 - CT CERAMIC TILE (FLOOR BASE AND WALL)
 - CJ CONTROL JOINT CLG - CEILING CNTR - COUNTER COMP - COMPACTED COMP - COMPRESSIBLE

C - CONCRETE

- COM COMPOSITION COND - CONDITION CONFG - CONFIGURE CONT - CONTINUOUS
- DES DESIGNATION DIA – DIAMETER DIM - DIMENSION

HORZ - HORIZONTAL

- INSURANCE CARRIER.
- 46. WORK TO COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.

- 49. PROVIDE BLOCKING IN WALLS AS REQUIRED IN ORDER TO SECURE ALL EQUIPMENT (ACCESSORIES, HANDRAILS, CASEWORK, ETC) PROVIDE BLOCKING AS REQUIRED FOR WALL OR CEILING SUPPORTED ITEMS. VERIFY REQUIREMENTS PER MANUFACTURER'S RECOMMENDATIONS WHERE APPLICABLE.
- OTHER CAUSES, AS RECOMMENDED BY THE RESPECTIVE PRODUCT MANUFACTURER AND/OR SUPPLIER.
- MANUFACTURER. ACTUAL SIZE AND LOCATION TO BE COORDINATED WITH APPROVED EQUIPMENT
- REFERENCE ONLY. COORDINATE AND LOCATE WITH MECHANICAL AND ELECTRICAL DRAWINGS.

LM - LATEX MASTIC FLOORING MANF - MANUFACTURER MC - MULTICOLOR COATING M.O. - MASONRY OPENING NF - NATURAL FINISH NIC - NOT IN CONTRACT

O.D. - OVERFLOW DRAIN OPNG - OPENING OPP - OPPOSITE P - PAINT (EXTERIOR, INTERIOR, TRANSPARENT FINISHES) PC - PRECAST (ARCHITECTURAL PRECAST CONCRETE PANELS) PCP - PORTLAND CEMENT PLASTER

PFW - POLYPROPYLENE FABRIC WALL COVERING PL - PLASTER P LAM - PLASTIC LAMINATE PLYWD - PLYWOOD PNL - PANEL

LT – LIGHT

LTG – LIGHTING

MAT - MATERIAL

MIN - MINIMUM

MOD - MODIFIED

MTL - METAL

NAT – NATURAL

NO - NUMBER

NOM - NOMINAL

OC - ON CENTER

MECH - MECHANICAL

PREP - PREPARATION PUT – POLYURETHANE QT – QUARRY TILE RAF - RESILIENT ATHLETIC FLOORING RB - RESILIENT BASE (RUBBER OR VINYL) RE: - REFER TO REFL - REFLECTED REINF - REINFORCEMENT

D.B. – DOUBLE BUNK REQ'D - REQUIRED R.D. – ROOF DRAIN RF - RAISED RUBBER FLOORING RTD - RATED DISP - DISPENSER S.B. – SINGLE BUNK D.O. - DOOR OPENING SC - HIGH BUILD GLAZED COATING (SPECIAL COATING) DTL - DETAIL

DWGS - DRAWINGS SP - SPECIAL FACED EA – EACH SPEC - SPECIAL (ARCHITECT'S CHOICE) E.F. – EXHAUST FAN SPEC - SPECIFICATIONS EL - ELEVATION

ST - STONE (CAST) ELEC - ELECTRICAL S STL - STAINLESS STEEL EFTR - EXISTING FINISH TO REMAIN SCHED - SCHEDULE EPY - EPOXY (COATINGS) SHT - SHEET EQUIP - EQUIPMENT SIM - SIMILAR EX – EXISTING SS – STAINLESS STEEL EXP - EXPOSED STL - STEEL

FD - FLOOR DRAIN STRUC - STRUCTURE FIN - FINISH TO - TOP OF FLR - FLOOR THK - THICKNESS FLSHG - FLASHING TRTD - TREATED FRM - FRAME

FRMG - FRAMING TYP - TYPICAL GA – GAGE UL – UNDERWRITERS LABORATORY GALV - GALVANIZED U.N.O. - UNLESS NOTED OTHERWISE

TT - TERRAZZO TILE (PLASTIC MATRIX)

SEC - SECURITY

GEN - GENERAL VCT - RESILIENT TILE FLOORING (VINYL COMPOSITION TILE) GL - GLASS VERT – VERTICAL GWB - GYPSUM WALL BOARD SYSTEMS

VIF - VERIFY IN FIELD GYP - GYPSUM VP - VENEER PLASTER H.C. - H/C - HANDICAPW - WALL COVERING (VINYL COATED FABRIC) HM - HOLLOW METAL WB - WALL BORDER

WD - WOOD HP - HORSEPOWER WIND - WINDOW WSF - WELDED SEAM SHEET FLOORING

HW - HARDWARE SET (FINISH OR BUILDERS HARDWARE) WT - WEIGHT INSUL - INSULATION

ARCHITECTURAL LEGEND

XX DETAIL NAME XX-XXX REF. REFERENCE DWG

SCALE: DRAWING SCALE REVISION INDICATION REFERENCE ELEVATION OR WORKING POINT

FIRE EXTINGUISHER 8 VALVE CABINET FIRE EXTINGUISHER 8 VALVE CABINET

(DETENTION TYPE)

FIRE EXTINGUISHER

EXIT SIGN WITH OR WITHOUT DIRECTIONAL ARROW FIRE HOSE VALVE CABINET

WINDOW REFERENCE

DOOR REFERENCE

COVER SHEET DRAWING INDEX, ABBREVIATIONS, LEGEND, AND GENERAL NOTES ARCHITECTURAL DEMOLITION FLOOR PLAN FLOOR PLAN AND WALL TYPES REFLECTED CEILING PLANS AND DETAILS AE121

FURNITURE PLAN INTERIOR ELEVATIONS AND DETAILS

DOOR AND WINDOW SCHEDULES & DETAILS

MECHANICAL

MECHANICAL GENERAL NOTES AND LEGEND MECHANICAL DEMOLITION FLOOR PLAN MECHANICAL FLOOR PLAN MECHANICAL DETAILS MECHANICAL SCHEDULES ELECTRICAL

ARCHITECTURAL LEGEND CONT'D

SECTION NO.

OR LETTER

ELEVATION NO.

OR LETTER

SHEET NO.

WALL SECTION NO.

OR LETTER

SHEET NO.

A1 \ DETAIL NO.

 \setminus **AE101**/ SHEET NO.

∖ AE101*/*

A1

\ AE101/

A1 \ DETAIL NO.

\ AE101/ SHEET NO.

COLUMN CENTER LINE

BUILDING SECTION

ELEVATION

WALL SECTION

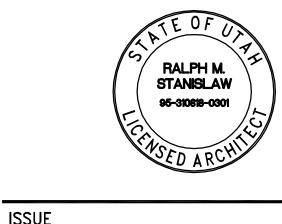
INTERIOR ELEVATION

ENLARGED DETAIL

ENLARGED SECTION DETAIL

EG100 SYMBOLS, NOTES, AND SCHEDULES **ELECTRICAL SPECIFICATIONS** EG102 ELECTRICAL DEMOLITION PLAN ELECTRICAL SPECIFICATIONS **NEW LIGHTING PLAN** EP102 NEW POWER PLAN **ELECTRICAL DIAGRAMS**

PROFESSIONAL SEAL



DIGITAL PHOTO LAB

UNIVERSITY BUILDING # 132

STATE BUILDING # 4895

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DESIGNER

CONSULTANTS

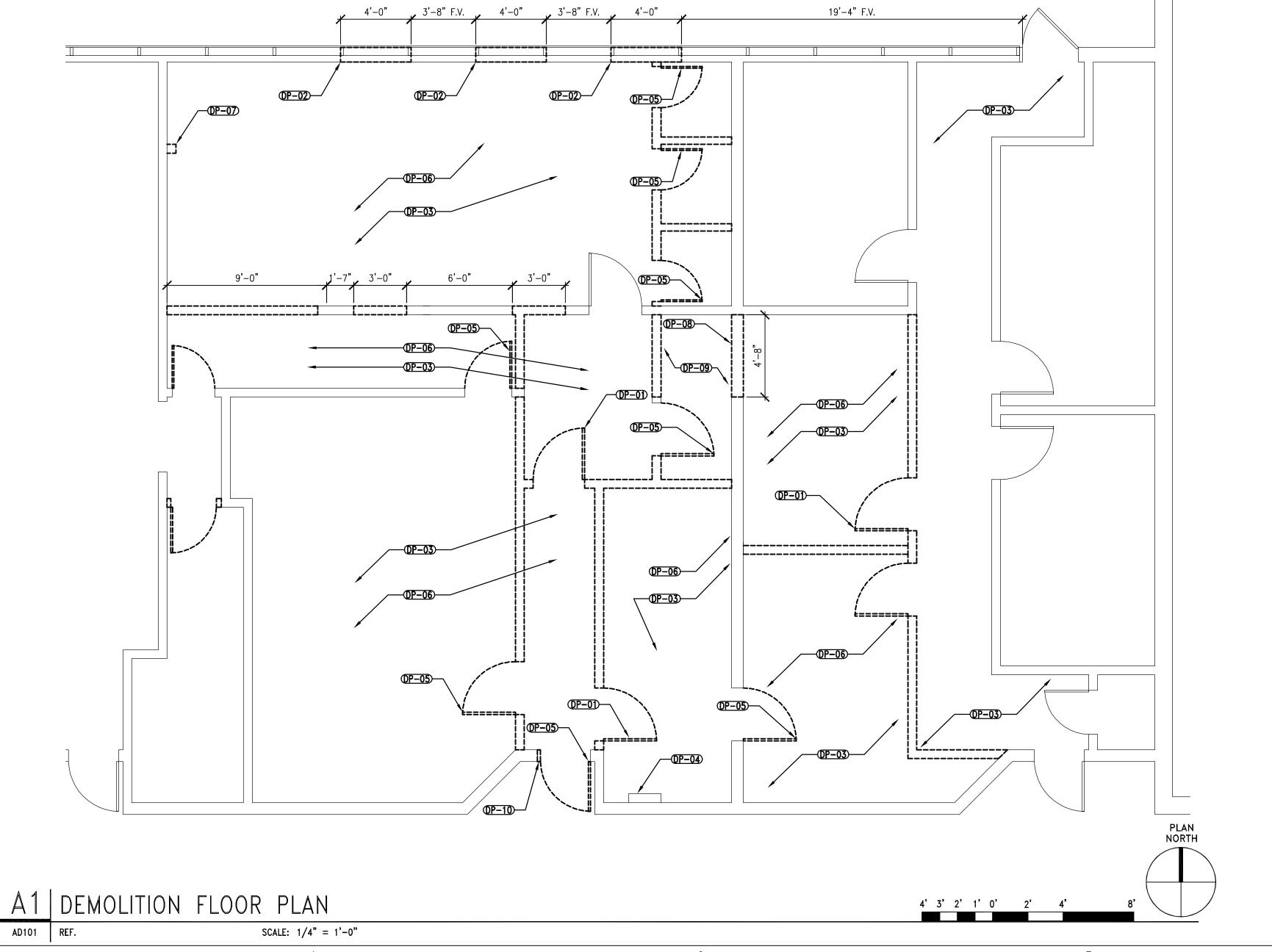
MARK	DATE	DESCRIPTION
DECM	CONTRACT	NO:

DFCM PROJECT NO: **ARCHIPLEX PROJECT NO:** DRAWN BY: CHECKED BY: SCALE: DATE: OCTOBEF KEY PLAN

SHEET TITLE

DRAWING INDEX

G001



1. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.

2. DO NOT SCALE DRAWINGS.

3. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.

4. DASHED LINES REPRESENT WALLS AND DOORS TO BE REMOVED.

5. ALL DIMENSIONS ARE TO FACE OF WALL, UNLESS NOTED OTHERWISE.

6. CONTRACTOR SHALL PROTECT ALL EXISTING FINISHES FROM DAMAGE DURING DEMOLITION AND REPAIR OR REPLACE ANY MATERIAL THAT IS DAMAGED.

7. CONTRACTOR SHALL VERIFY LOCATION OF ALL DUCTWORK, WATERLINES, GAS LINES, & OTHER UTILITIES SERVING THE EXISTING BUILDING & KEEP THEM IN WORKING ORDER.

8. COVER RETURN AIR OPENINGS BEFORE AND DURING CONSTRUCTION.

9. PREPARE ALL WALLS AFFECTED BY DEMOLITION TO RECIEVE NEW FINISHES.

DEMOLITION FLOOR PLAN KEYNOTES

DP-O1 SAVE AND REUSE DOOR & FRAME (SEE DOOR SCHEDULE FOR PLACEMENT)

OP-O2 ALTERNATE #1: DEMOLISH C.M.U. WALL AS REQ'D TO ACCOMODATE NEW

REMOVE AND SALVAGE EXISTING CARPET, PREP FLOOR AS REQUIRED TO RECEIVE NEW FINISH.

WINDOW. CORD. OPENING SIZE W/ STOREFRONT MULLION SPACING. RE:

OP-04 EXISTING ELECTRICAL PANEL TO REMAIN

OP-05 REMOVE AND DISCARD INTERIOR DOORS, HARDWARE, AND FRAMES
- WILL BE PICKED UP BY SUU LOCKSHOP

OP-06 REMOVE AND DISCARD EXISTING CEILING ABOVE, DISCARD ALL

(DP-07) REMOVE METER & CAP LINES

DP-08) CMIL WALL

PREPARE CEILING AND WALL AS NEEDED TO TERMINATE NEW COMMUNICATION CONDUITS IN THIS AREA.

OP-10 SAWCUT BLOCK TO ENLARGE OPENING FOR NEW 3'-0" DOOR

SOUTHERN UTAH UNIVERSITY

DIGITAL PHOTO LAB
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STATE BUILDING # 4895
109 SOUTH 800 WEST
CEDAR CITY, UTAH 84720

DESIGNER

CLIENT

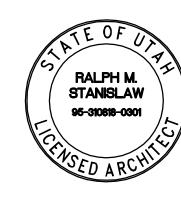


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CONSULTANTS

PROFESSIONAL SEAL



MARK	DATE	DESCRIPTION	
DFCM	CONTRACT	NO:	077004
DFCM	PROJECT	NO:	06126730
ARCHI	PLEX PROJ	ECT NO:	0620.01
DRAWI	N BY:		E. RUSTEN
CHECK	(ED BY:		R. STANISLAW
SCALE	•		1/4"=1'-0"

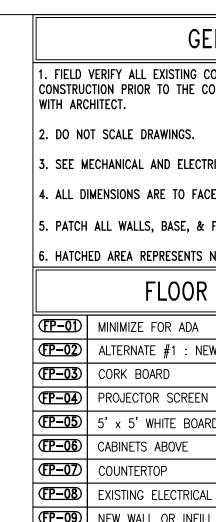
OCTOBER 27, 2006

SHEET TITLE

KEY PLAN

DEMOLITION PLAN

AD101



1. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES

3. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.

4. ALL DIMENSIONS ARE TO FACE OF WALL, UNLESS NOTED OTHERWISE.

5. PATCH ALL WALLS, BASE, & FLOOR FINISH AS REQ'D BY NEW CONST.

6. HATCHED AREA REPRESENTS NEW WALL AREAS

SHELVING ABOVE (FP-12) 18" LOCKABLE LOWER CABINETS

FLOOR PLAN KEYNOTES

(FP-01)	MINIMIZE FOR ADA
(FP-02)	ALTERNATE #1 : NEW FIXED VISION WINDOWS CUT-IN-WALL
(FP-03)	CORK BOARD
(FP-04)	PROJECTOR SCREEN RE: SPEC.
(FP-05)	5' x 5' WHITE BOARD
(FP-06)	CABINETS ABOVE
(FP-07)	COUNTERTOP
(FP-08)	EXISTING ELECTRICAL PANEL TO REMAIN
(FP-09)	NEW WALL OR INFILL WALL (PAINTED GYPSUM)
(FP-10)	COMPUTER DESKS

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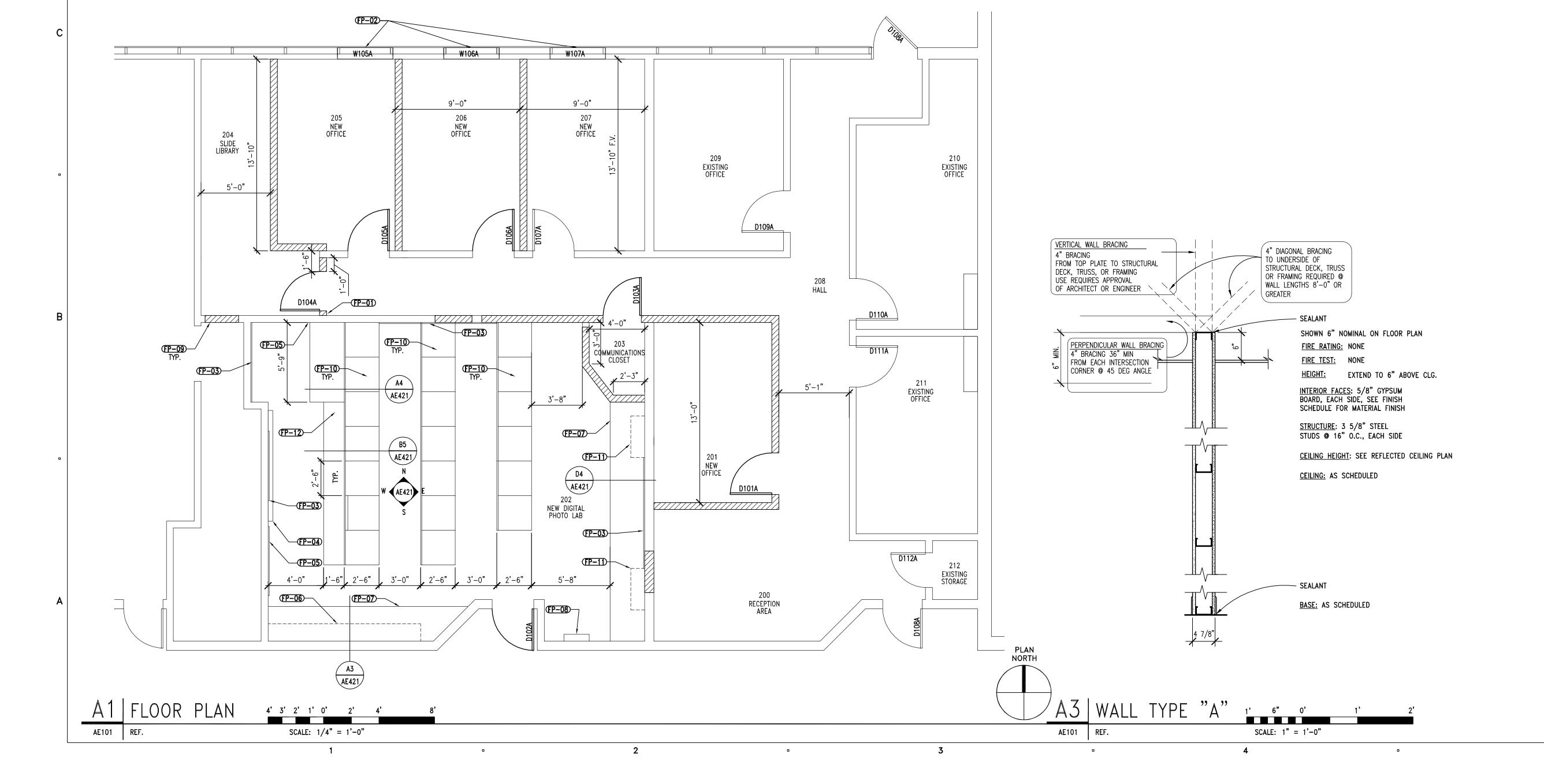
MARK	DATE	DESCRIPTION	N	
DFCM	CONTRACT	NO:		077004
	CONTRACT PROJECT		06	077004 6126730
DFCM		NO:	06	
DFCM	PROJECT I PLEX PROJ	NO:		5126730
DFCM ARCHI DRAWN	PROJECT I PLEX PROJ	NO:	Ε.	0620.01
DFCM ARCHI DRAWN	PROJECT PLEX PROJ N BY: (ED BY:	NO:	E. R. ST	6126730 0620.01 RUSTEN

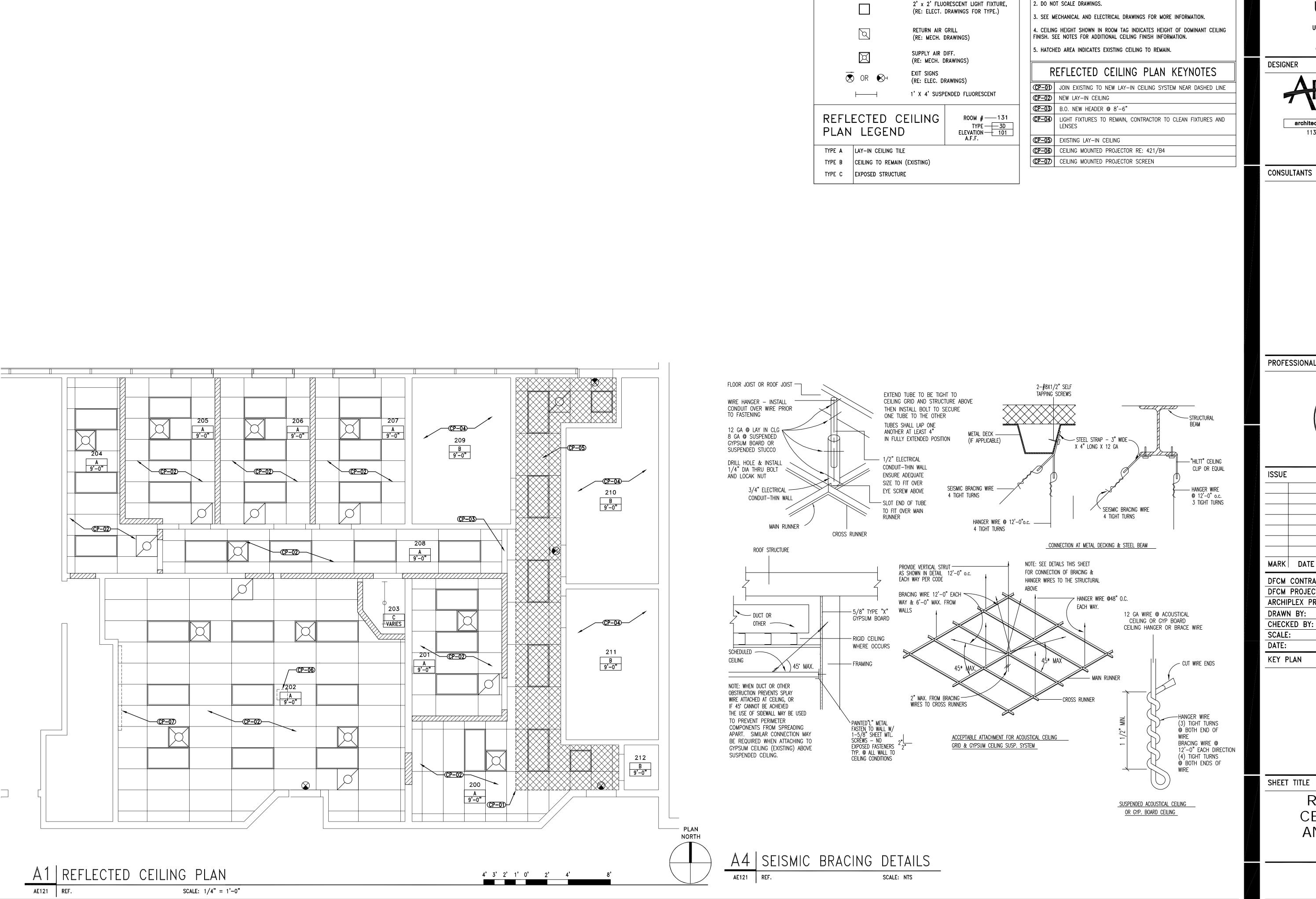
SHEET TITLE

KEY PLAN

FLOOR PLAN AND WALL **TYPES**

AE101





CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES

1. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW

WITH ARCHITECT.

CEILING SYMBOLS

2' x 4' FLUORESCENT LIGHT FIXTURE,

(RE: ELECT. DRAWINGS FOR TYPE.)

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DFCM CONTRACT NO:				077004
DFCM PROJECT NO:				06126730
ARCHIPLEX PROJECT NO:				0620.01
DRAWN BY:				E. RUSTEN
CHECK	(ED BY:		R.	STANISLAW

AS SHOWN

OCTOBER 27, 2006

KEY PLAN

SHEET TITLE

REFLECTED CEILING PLAN AND DETAILS

AE121

1. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.

2. DO NOT SCALE DRAWINGS.

3. SEE STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE

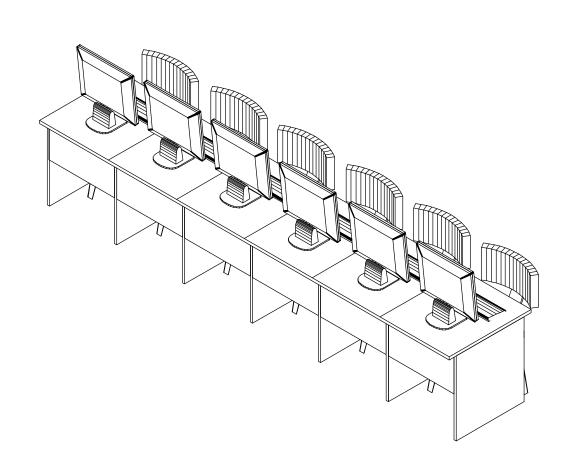
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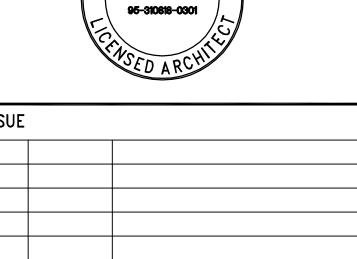
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B4 DESK CONFIGURATION ISOMETRIC

SCALE: NTS

PROFESSIONAL SEAL



RALPH M. STANISLAW

MARK DATE DESCRIPTION

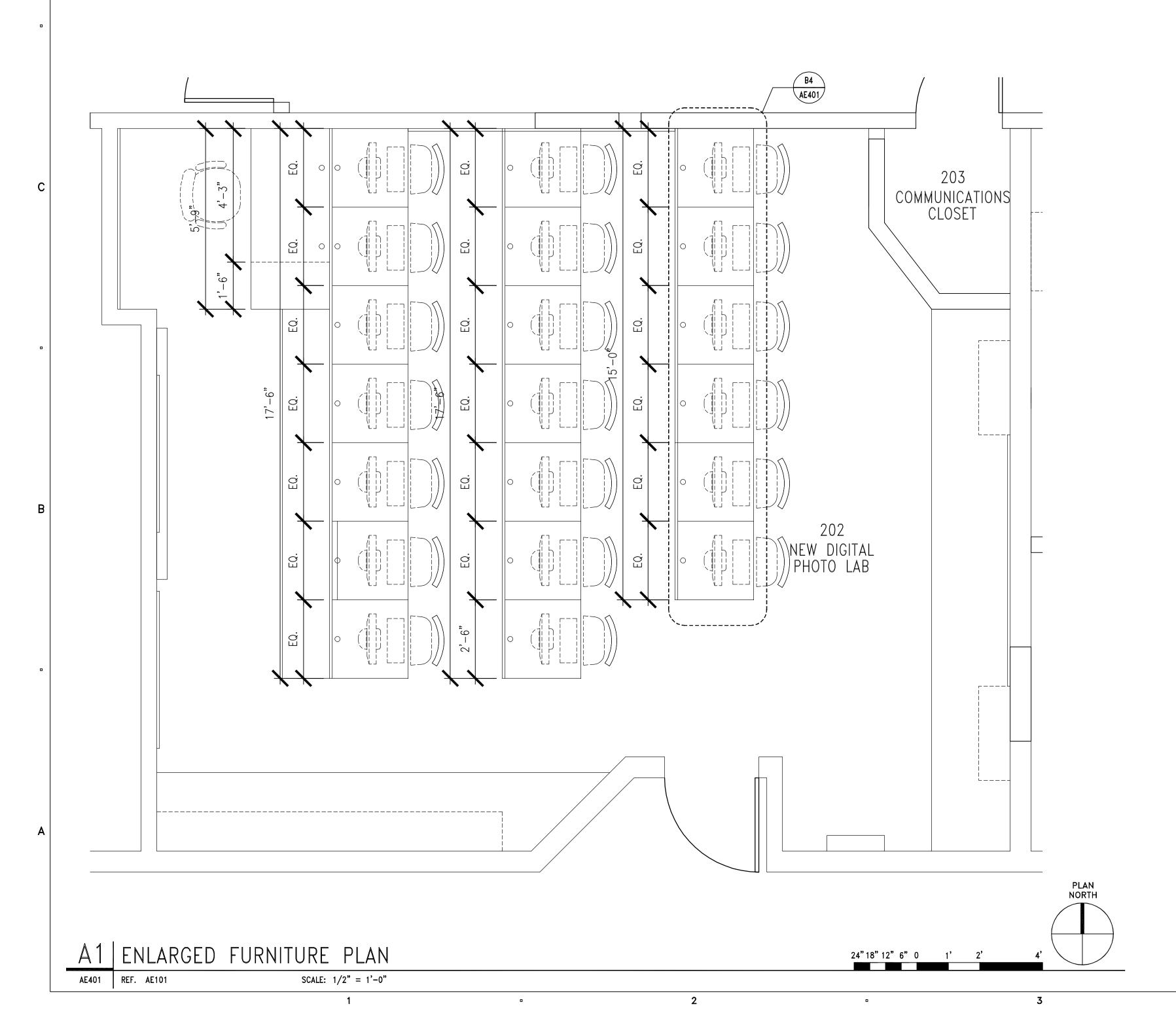
DFCM CONTRACT NO: 077004 DFCM PROJECT NO: 06126730 ARCHIPLEX PROJECT NO: 0620.01 E. RUSTEN DRAWN BY: R. STANISLAW 1/2"=1'-0" CHECKED BY: OCTOBER 27, 2006

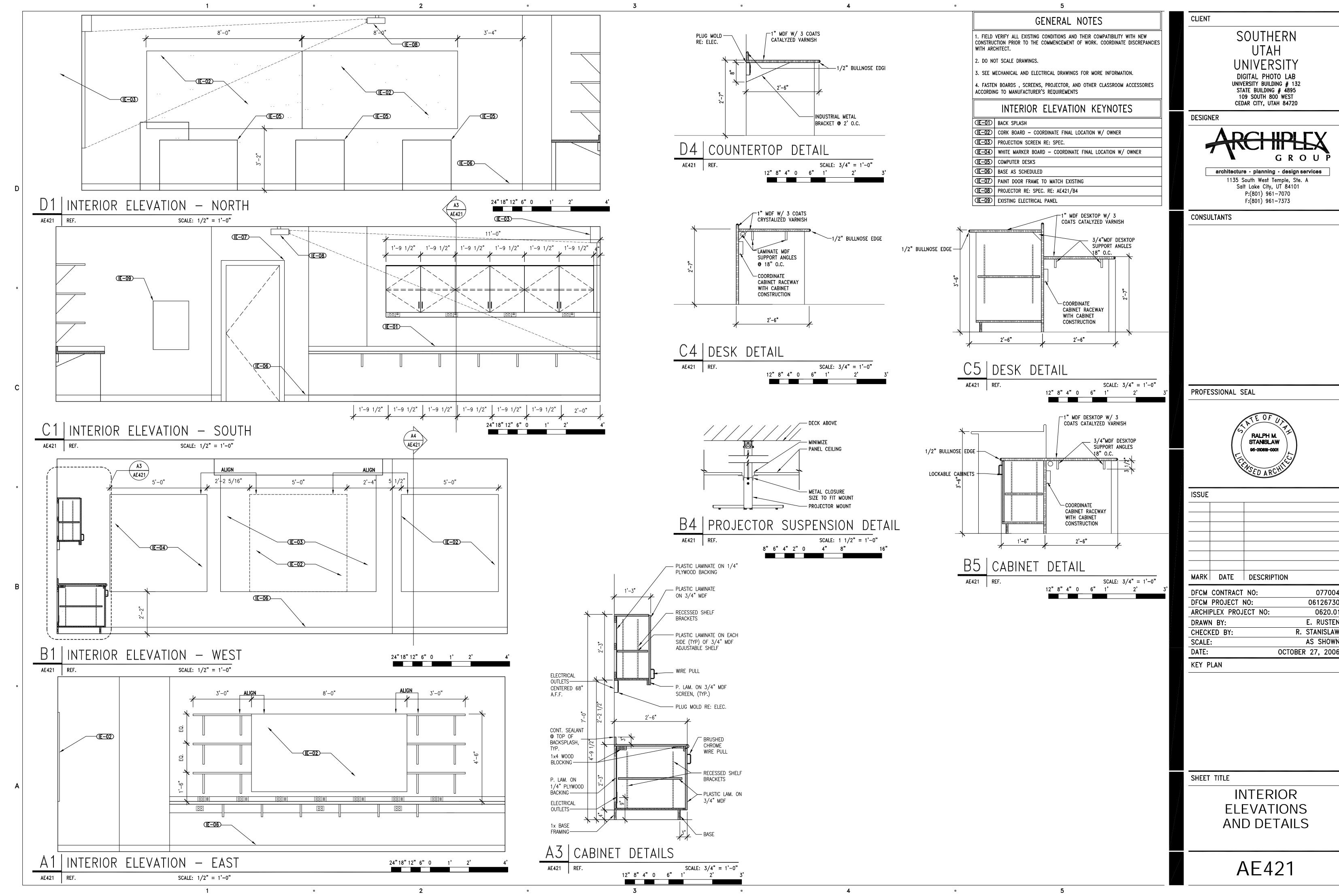
KEY PLAN

SHEET TITLE

ENLARGED FLOOR PLAN

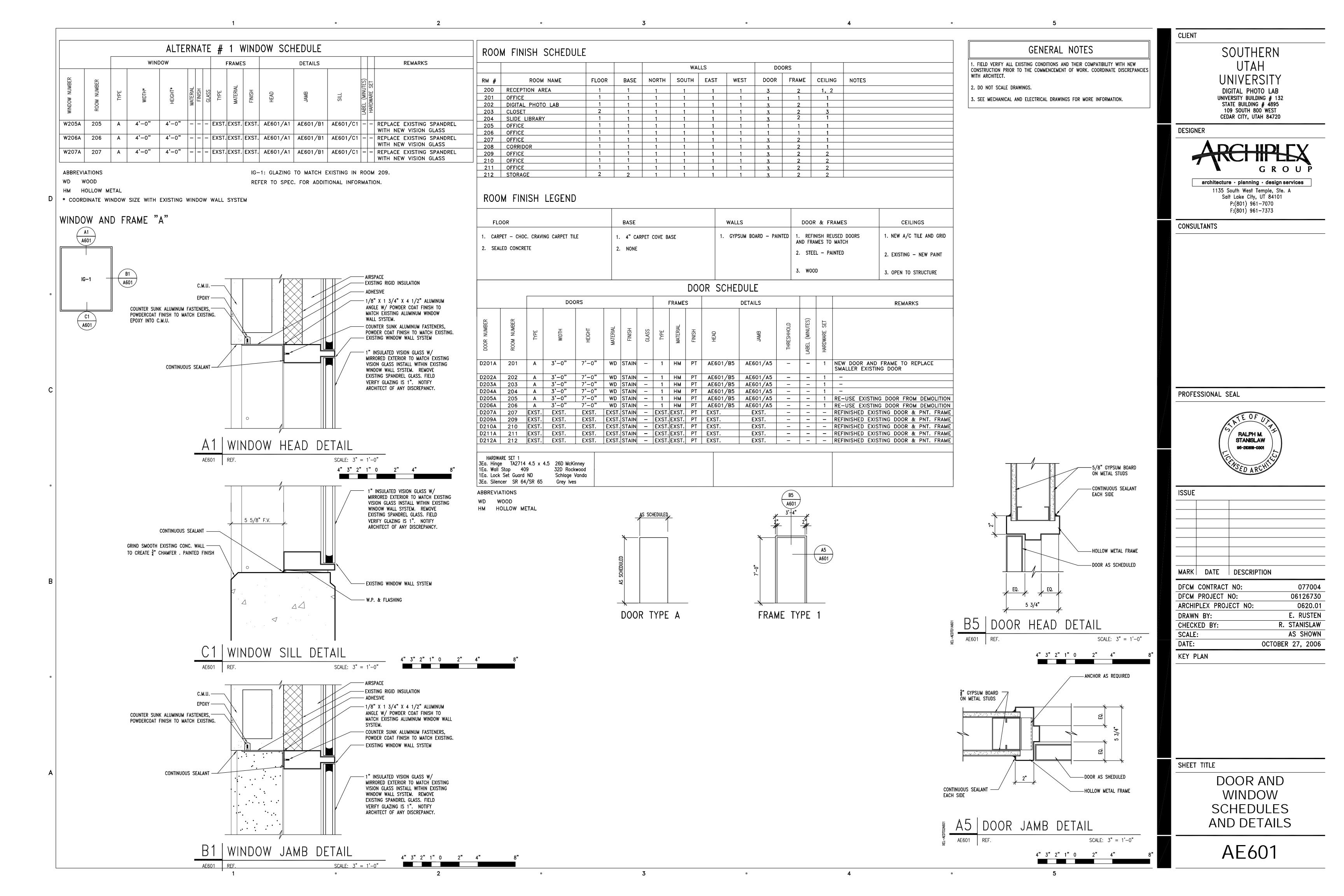
AE401





13305			
MARK	DATE	DESCRIPTION	
DFCM	CONTRACT	NO:	077004

DFCM PROJECT NO:	06126730
ARCHIPLEX PROJECT NO:	0620.01
DRAWN BY:	E. RUSTEN
CHECKED BY:	R. STANISLAW
SCALE:	AS SHOWN
DATE:	OCTOBER 27, 2006
VEV DIANI	



G-1 MECHANICAL INFORMATION IS LIMITED TO THE MECHANICAL DOCUMENTS.

A - EACH DRAWING SHEET FROM ALL DISCIPLINES HAVE BEEN PREPARED TO SUPPLEMENT EACH OTHER AND THEY SHALL BE INTERPRETED AS AN INTEGRAL UNIT WITH ITEMS SHOWN AND NOTED ON ONE AND NOT THE OTHER BEING FURNISHED AND INSTALLED AS THOUGH SHOWN AND CALLED OUT IN ALL PLACES. ITEMS IN SPECIFICATIONS OR DRAWINGS LISTED WHICH ARE DIFFERING IN EFFICIENCY OR QUALITY SHALL BE HELD TO THE GREATEST OF: EFFICIENCY, QUALITY OR GOVERNING CODE.

B - THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE INSTALLATION OF THE SYSTEMS ACCORDING TO THE TRUE INTENT AND MEANING OF THE CONTRACT DOCUMENTS.

C - THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT WITH PROPER SERVICE ACCESS AND CLEARANCES ACCORDING TO MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL REVIEW SUPPLIERS BID PACKAGES FOR COMPLETENESS AND COMPLIANCE TO THE DOCUMENTS, SCHEDULES, AND DESIGN INTENT (ALL EQUIPMENT AND METHODS). THE CONTRACTOR SHALL REMOVE AND REINSTALL CORRECTLY AT HIS OWN EXPENSE ANY EQUIPMENT NOT IN COMPLIANCE.

D - THE CONTRACTOR SHALL CONSULT MANUFACTURERS
INSTALLATION INSTRUCTIONS FOR SIZES, METHODS, ACCESSORIES,
AND CLEARANCES IN SPACE AVAILABLE PRIOR TO BIDDING PROJECT

E - ANYTHING NOT CLEAR OR IN CONFLICT WILL BE EXPLAINED BY MAKING APPLICATION TO THE ENGINEER IN WRITING.

- G-2 ANY AND ALL ALTERATIONS TO THE SYSTEM SHOWN SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. ENGINEER SHALL BE NOTIFIED IN WRITING PRIOR TO CHANGES.
- G-3 CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND LOCATIONS.
- G-4 THE WORKING DRAWINGS ARE DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND, OR ELBOW NECESSARY FOR THE COMPLETE INSTALLATION IN THE SPACE PROVIDED. ALL LOCATIONS FOR MECHANICAL EQUIPMENT SHALL BE FIELD VERIFIED AND COORDINATED WITH ALL DRAWINGS. THE CONTRACTOR SHALL PROVIDE OR COORDINATE WITH THE GENERAL CONTRACTOR PROVISIONS FOR BLOCKOUTS OR CORE DRILLS THROUGH STRUCTURE.
- G-5 THE INSTRUCTION TO "PROVIDE" ALSO INCLUDES INSTALLATION.
- G-6 MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL SMOKE AND FIRE DAMPERS AS REQUIRED BY LOCAL CODES AND AUTHORITIES.
- G-7 SHEET METAL DUCT SIZES SHOWN ON DRAWINGS ARE FREE AREA DIMENSIONS.
- G-8 PROVIDE AND INSTALL BALANCING DAMPERS IN ALL SUPPLY AND EXHAUST AIR BRANCH DUCTS.
- G-9 PROVIDE TURNING VANES IN ALL ELBOWS OF RECTANGULAR DUCT.
- G-10 THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY IN HANDLING AND DISPOSING OF REFRIGERANTS, OILS, ETC. ALL SUCH MATERIALS SHALL BE HANDLED, DISPOSED, AND USED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL LAWS.
- G-11 C.F.M. LISTED IS ACTUAL AIR.
- G-12 SUPPLIERS SHALL REVIEW ALL DRAWINGS PRIOR TO SUBMITTING PRICES TO THE CONTRACTOR. ALL QUESTIONS AND DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO BIDDING.
- G-13 CONTRACTOR SHALL THOROUGHLY REVIEW AND SIGN SUBMITTALS FOR COMPLETENESS AND COMPLIANCE TO THE DOCUMENTS PRIOR TO ENGINEERS REVIEW. SUPPLIERS SHALL HIGHLIGHT OR MARK ALL INFORMATION REQUIRED TO SHOW COMPLIANCE TO THE DOCUMENTS. ALL REQUESTED EXCEPTIONS TO THE DOCUMENTS, OR SCHEDULES SHALL BE CLEARLY NOTED AND EXPLAINED. SUBMITTAL REVIEW AND ACCEPTANCE IS FOR DESIGN CONCEPT ONLY, AND DOES NOT AT ANY TIME RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO MEET DOCUMENTS, CAPACITIES, OR DESIGN INTENT.
- G-14 ALL MECHANICAL SHALL BE INSTALLED AND CONFORM TO THE 2003 EDITION OF THE IMC WITH UTAH ANNOTATIONS AND LOCAL AUTHORITY REQUIREMENTS.

SYMBOL	ABR.	DESCRIPTION	SYMBOL	ABR.	DESCRIPTION
STIVIBUL	ADK.	DESCRIPTION	STIVIBUL	ADK.	DESCRIPTION
₩ 🖽		EXISTING AIR DUCT TO BE REMOVED	<u> </u>		UNION
\ \ 		EXISTING AIR DUCT TO REMAIN			THREADED OR SWEAT VALVE
		NEW AIR DUCT	<u> </u>		BUTTERFLY VALVE
기 급		RECT. TO RECT. AIR DUCT TAKE-OFF			GATE VALVE
7 =		RECT. TO RND. AIR DUCT TAKE-OFF		PRV	PRESSURE REDUCING VALVE
五		RND. TO RND. AIR DUCT TAKE-OFF	<u> </u>	BV	BALL VALVE
\frac{1}{2}		FLEXIBLE AIR DUCT			DIRECTION OF FLOW
		LINED DUCT	—		PITCH DOWN
		VANED ELBOW	0		ELBOW UP
		RADIUS ELBOW	C		ELBOW DOWN
X D		CONCENTRIC DUCT TRANSITION	<u> </u>		TEE UP
7 1		ECCENTRIC DUCT TRANSITION			TEE DOWN
		FLEXIBLE DUCT CONNECTION			EXISTING PIPING TO BE REMOVED
₽		VOLUME DAMPER			EXISTING PIPING TO REMAIN
		SUPPLY AIR DIFFUSER			NEW PIPING
<u> </u>		RETURN AIR, FRESH AIR, AND TRANSFER AIR			PIPE CAP OR PLUG
<u> </u>		CEILING MOUNTED EXHAUST FAN OR EXHAUST GRILLE	—CD—		CONDENSATE DRAIN
		RETURN OR OUTSIDE AIR DUCT UP	G		NATURAL GAS PIPING
		SUPPLY DUCT UP	— DR —		EQUIPMENT DRAIN
		EXHAUST AIR INTAKE UP	Â		REVISION DESIGNATOR AND NUMBER
		RETURN OR OUTSIDE AIR DUCT DOWN	(1)		KEY NOTE DESIGNATOR AND NUMBER
		SUPPLY DUCT DOWN	•	POC	POINT OF CONNECTION
→ 1		ROUND DUCT UP	-	POR	POINT OF REMOVAL
企 体		ROUND DUCT DOWN	AFF		ABOVE FINISHED FLOOR
		FLEXIBLE DUCT CONNECTION	AP		ACCESS PANEL
	AP	ACCESS PANEL	မြ EL.		CENTER LINE ELEVATION
		EXISTING EQUIPMENT TO BE REMOVED	INV. ELEV.		INVERT ELEVATION
		EXISTING EQUIPMENT TO REMAIN	GC		GENERAL CONTRACTOR
		NEW EQUIPMENT	MC		MECHANICAL CONTRACTOR
F	FD	FIRE DAMPER	СС		CONTROL CONTRACTOR
2	SD	SMOKE DAMPER	EC		ELECTRICAL CONTRACTOR
T	T'STAT	WALL MOUNTED THERMOSTAT	NIC		NOT IN CONTRACT
SA		SUPPLY AIR	NTS		NOT TO SCALE
RA		RETURN AIR			
EA		EXHAUST AIR	A A		- SECTION LETTER DESIGNATION
OA		OUTSIDE AIR	ME-501/-		– SECTION DRAWN ON THIS SHEET
MA		MIXED AIR	(A2)		- DETAIL NUMBER DESIGNATION
FA		FRESH AIR			- CORRESPONDING WITH GRID LOCATION
RF		RELIEF AIR	AH 1		- MECHANICAL EQUIPMENT DESIGNATION - EQUIPMENT ITEM DESIGNATION
			- CFM		REGISTER, GRILLE OR DIFFUSER DESIGNATION WITH BALANCING CFM LISTED BELOW

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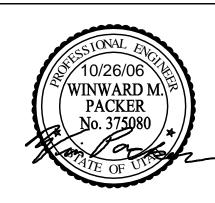
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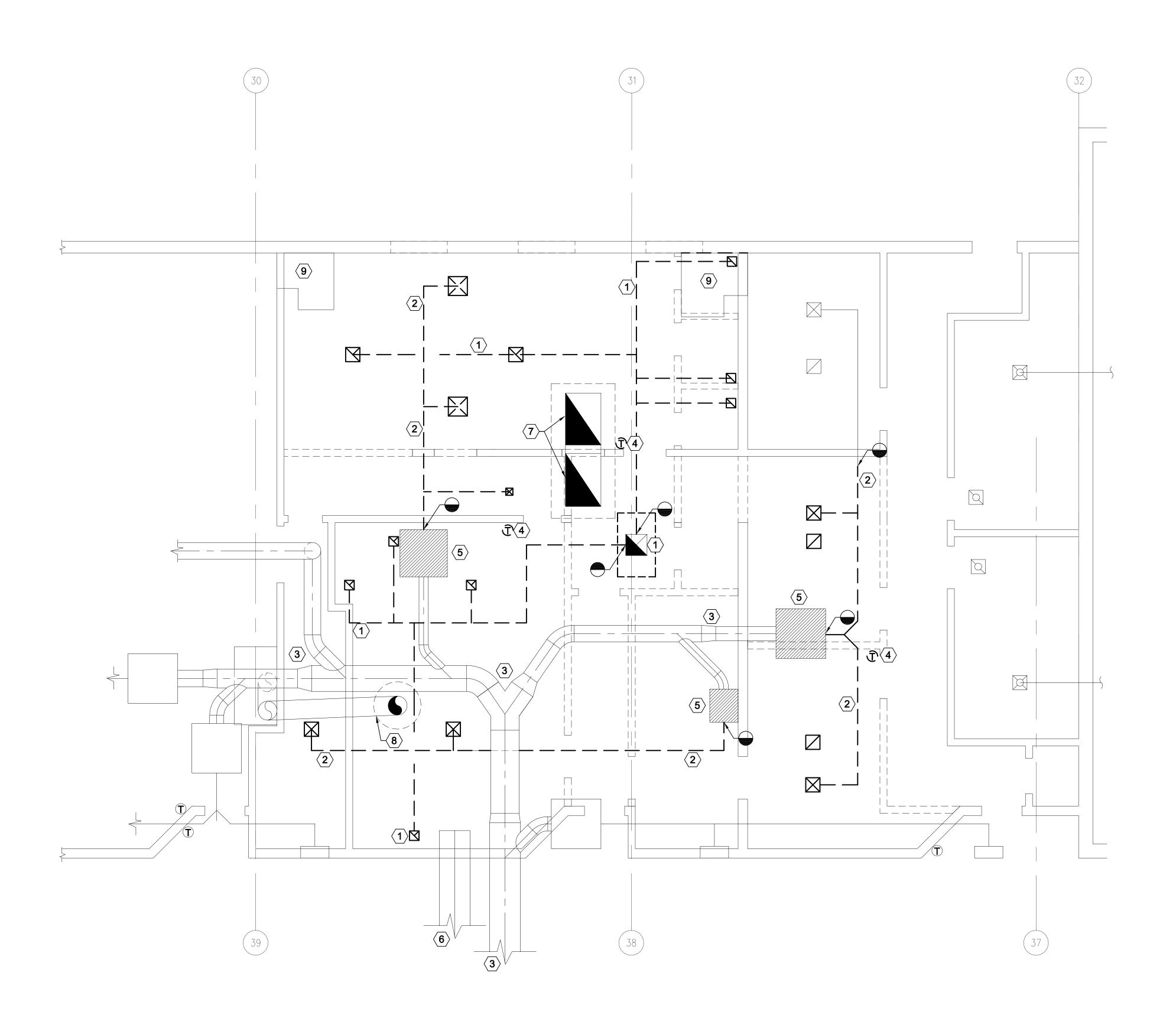
MARK	DATE	DESCRIP	TION		
DFCM	CONTRACT	NO:		07	77004
DFCM	PROJECT I	٧0:		0612	26730
ARCHI	PLEX PROJ	ECT NO:		06	520.01
DRAWI	N BY:				
CHECK	(ED BY:				
SCALE	•				
DATE:			October	26,	2006

SHEET TITLE

KEY PLAN

MECHANICAL GENERAL NOTES AND LEGEND

M001



SHEET NOTES:

- $\langle 1 \rangle$ EXISTING EXHAUST DUCT AND GRILLES TO BE REMOVED. TAG OUT AND ABANDON ROOF MOUNTED EXHAUST
- $\langle \overline{2} \rangle$ LOW PRESSURE DUCTWORK AND
- SHOWN ON SHEET ME101.
- REMAIN.
- DROPS SHALL REMAIN.
- REMAIN.

GENERAL NOTE:

ON AS-BUILT DRAWINGS. THIS CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITION EQUIPMENT LOCATIONS, ETC. PRIOR TO PERFORMING WORK. ANY DISCREPANCIES, MODIFICATIONS, ETC. SHALL BE BROUGHT TO THE **ENGINEERS ATTENTION PRIOR TO** MAKING CHANGES.

- GRILLES TO BE REMOVED AS SHOWN.
- (3) MEDIUM PRESSURE DUCTWORK TO REMAIN
- 4 RELOCATE EXISTING T-STAT AS
- (5) EXISTING CONSTANT VOLUME BOX SHALL REMAIN.
- 6 EXISTING RETURN DUCT SHALL
- (7) EXISTING RELIEF AIR HOOD AND
- $\langle 8 \rangle$ EXISTING ROOF MOUNTED EXHAUST FAN AND DUCT SHALL REMAIN.
- (9) EXISTING TRANSFER AIR DUCTS SHALL

1 PLANS HAVE BEEN PREPARED BASED

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DFCM	CONTRACT	NO:	077004		
DFCM	PROJECT I	NO:	06126730		
ARCHIPLEX PROJECT NO:			0620.01		
DRAWI	DRAWN BY:				
CHECK	(ED BY:				

October 26, 2006

SHEET TITLE

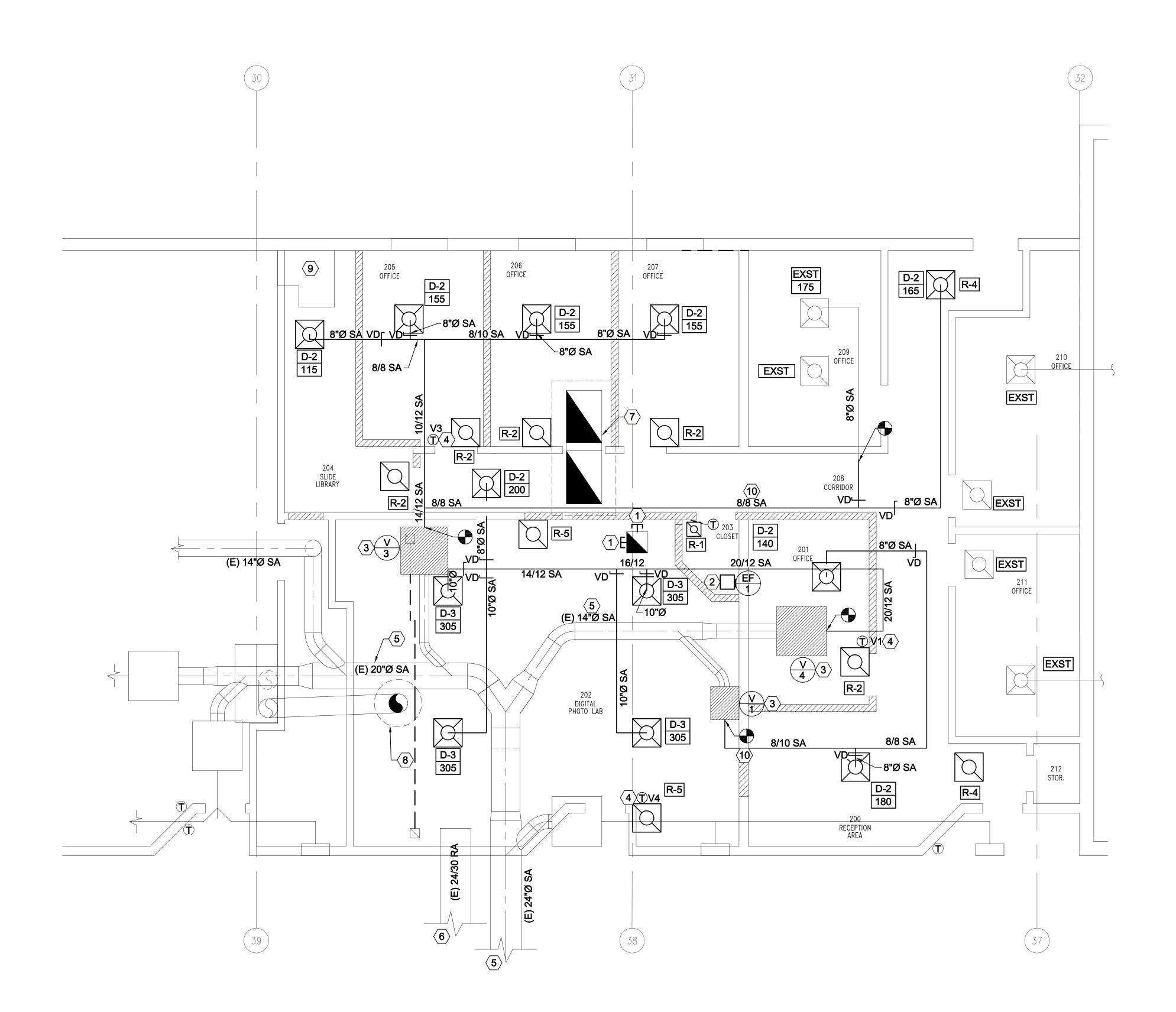
KEY PLAN

MECHANICAL DEMOLITION FLOOR PLAN

MD101

MECHANICAL DEMOLITION FLOOR PLAN

SCALE: 1/4" = 1'-0"



MECHANICAL FLOOR PLAN



SHEET NOTES:

- (1) CAP EXHAUST DUCT IN PLACE. TAG AND ABANDON ROOF MOUNTED EXHAUST FAN.
- (2) EXHAUST FAN TO PLENUM. TO BE CONTROLLED BY A COOLING ONLY T-STAT.
- (3) EXISTING CONSTANT VOLUME TERMINAL BOX TO REMAIN.
- 4 RE-LOCATE EXISTING THERMOSTAT AS SHOWN.
- 5 EXISTING MEDIUM PRESSURE DUCTWORK SHALL REMAIN.
- 6 EXISTING RETURN AIR DUCT SHALL REMAIN.
- T EXISTING RELIEF AIR HOODS AND DUCTS SHALL REMAIN.
- 8 EXISTING ROOF MOUNTED EXHAUST FAN AND DUCT SHALL REMAIN.
- 9 EXISTING TRANSFER DUCTS SHALL REMAIN.
- COORDINATE WITH G.C. TO PROVIDE PENETRATION THROUGH BLOCK WALL ABOVE CEILING. FIELD VERIFY EXACT PATH FOR NEW DUCTWORK.

GENERAL NOTES:

- 1 PLANS HAVE BEEN PREPARED BASED ON AS-BUILT DRAWINGS. THIS CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONING EQUIPMENT LOCATIONS, ETC. PRIOR TO PERFORMING WORK. ANY DISCREPANCIES, MODIFICATIONS, ETC. SHALL BE BROUGHT TO THE ENGINNERS ATTENTION PRIOR TO MAKING CHANGES.
- 2 ALL NEW RECTANGULAR DUCTWORK TO HAVE 1" DUCT LINER.

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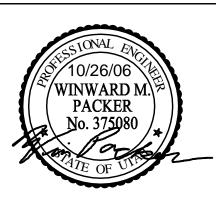
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DFCM	DFCM CONTRACT NO: 077004					
DFCM PROJECT NO: 06126730						
ARCHIPLEX PROJECT NO: 0620.0						

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CHECKED BY:

SCALE:

DATE:

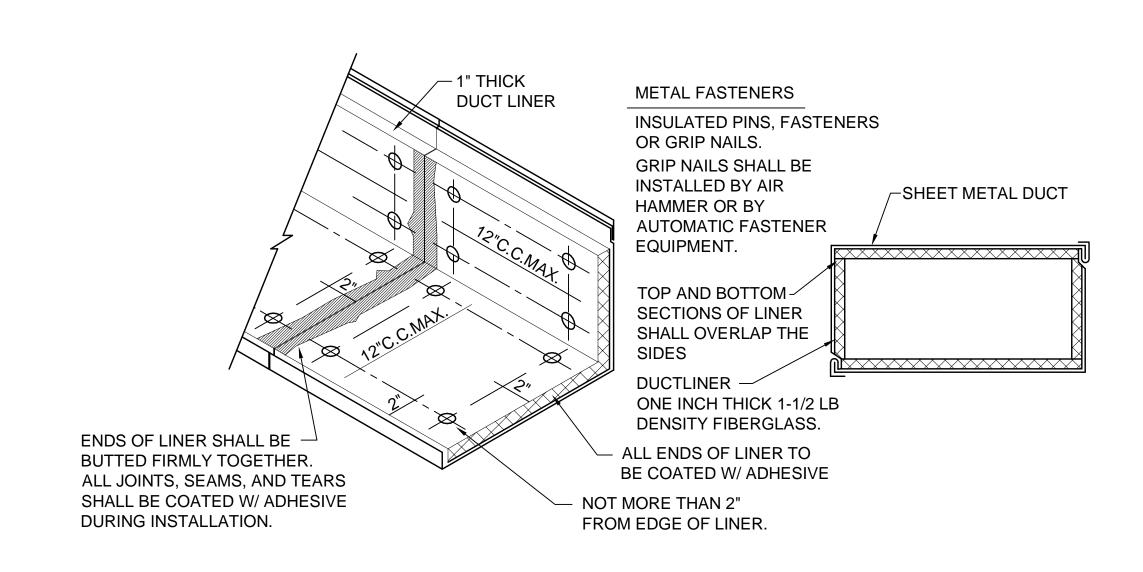
October 26, 2006

KEY PLAN

SHEET TITLE

MECHANICAL FLOOR PLAN

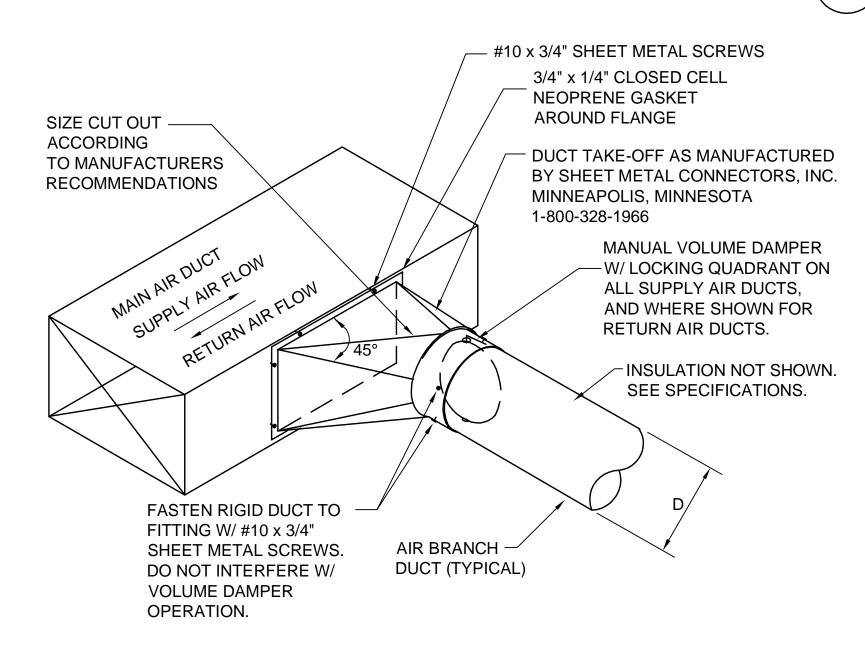
ME101

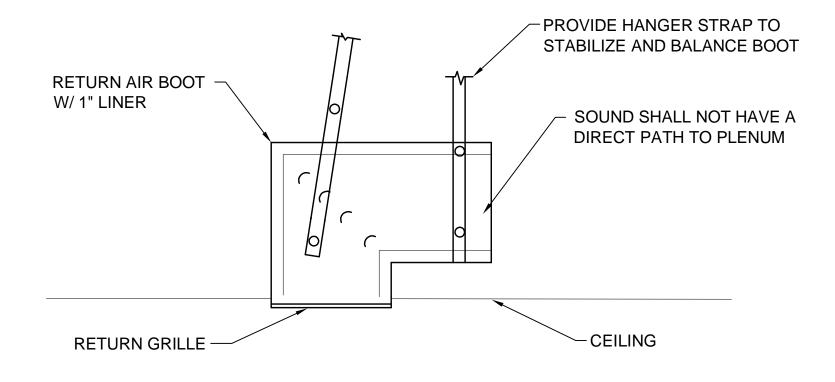


C1 DUCT LINER DETAIL
SCALE: NONE

l	LOW PRESSURE ROUND DUCT Construction schedule						
	CUNSTR	OC110N 2					
DUCT	_	JM 2" W.G. POSITIVE	MAXIMUM 2" W.G. STATIC NEGATIVE				
DIAMETER IN INCHES	SPIRAL SEAM GAUGE	LONGITUDINAL SEAM GAUGE	SPIRAL SEAM GAUGE	LONGITUDINAL SEAM GAUGE			
3 thru 8	28	28	28	24			
9 thru 14	28	26	26	24			
15 thru 26	26	24	24	22			
27 thru 36	24	22	22	20			
37 thru 50	22	20	20	18			

LOW PRESSURE ROUND DUCT CONSTRUCTION DETAIL SCALE: NONE



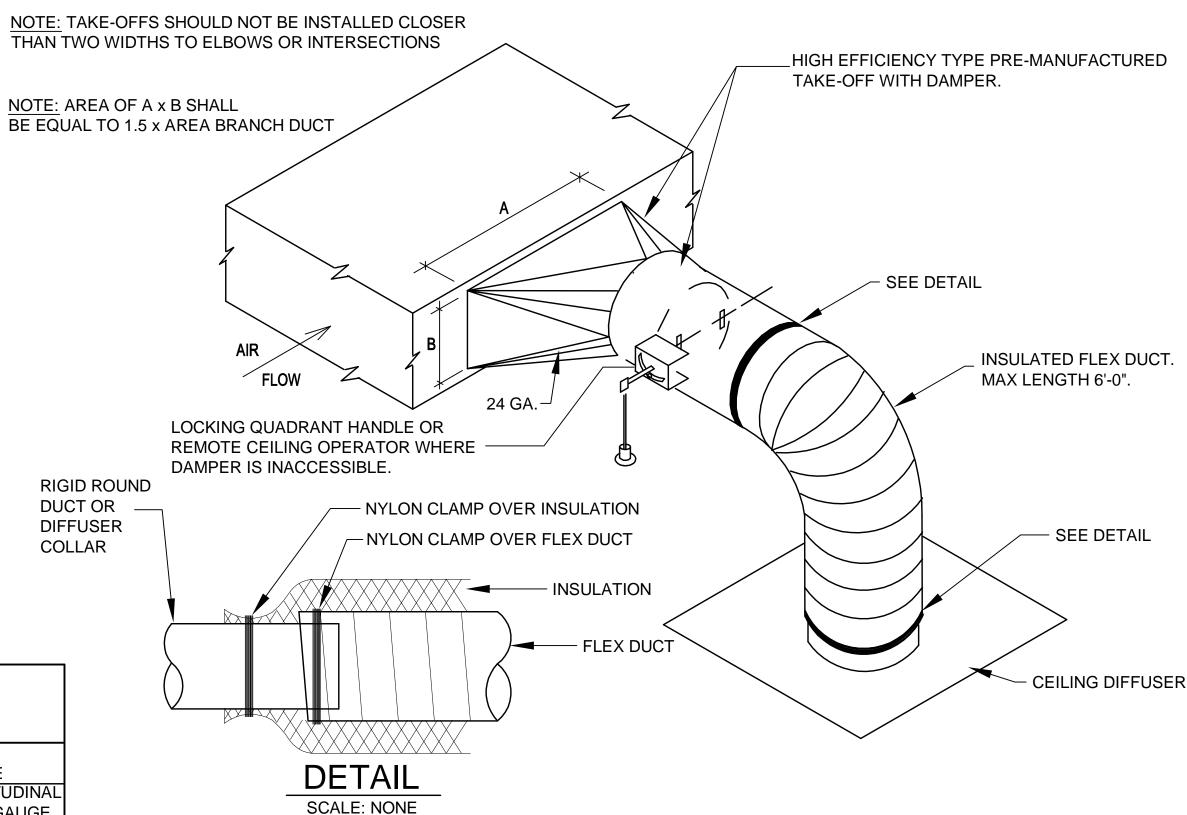


RECTANGULAR-TO-ROUND

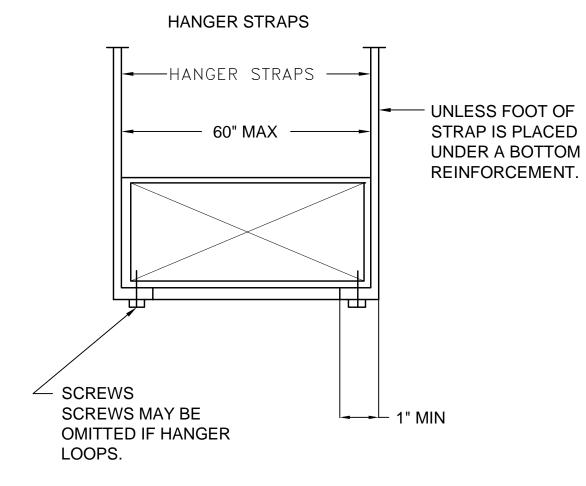
DUCT CONNECTION DETAIL

SCALE: NONE

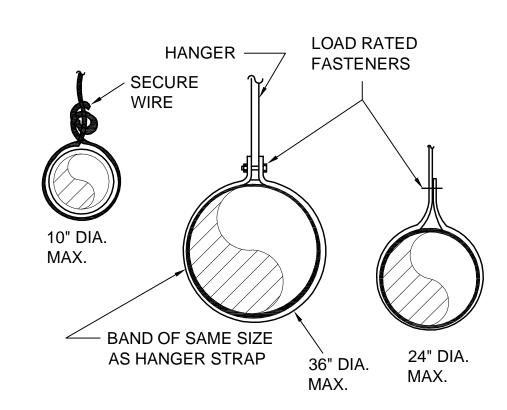




C4 SCALE: NONE







A4 DUCT SUPPORTS

SCALE: NONE

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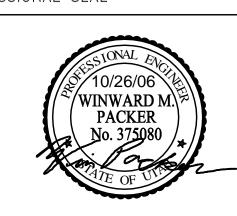
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MARK	DATE	DESCRIPTION					
DFCM	CONTRACT	NO:	077004				
DFCM	PROJECT	06126730					
ARCHI	PLEX PROJ	0620.01					
	DDAWN DV.						

DRAWN BY:

CHECKED BY:

SCALE:

DATE:

October 26, 2006

KEY PLAN

SHEET TITLE

MECHANICAL DETAILS

ME501

	EXHAUST FAN SCHEDULE									
SYMBOL	MANUFACTURER & MODEL No.	SERVES	C.F.M.	STATIC PRESSURE IN. WG.	MAX NOISE SONES		MOTOR		OPER. WT. (LBS)	COMMENTS
						V - Ø - Hz	W	RPM		
EF 1	GREENHECK SP-B70	TELE/DATA CLOSET 103	50	.2	2.4	115-1-60	45	675	9	EXHAUST TO PLENUM. CONTROL WITH T-STAT.

4

F	REGISTER, LOUVER & GRILLE SCHEDULE						
SYMBOL	TYPE	SERVICE	MAX CFM	NOMINAL SIZE	THROAT SIZE	CEILING TYPE	SCHEDULE NOTES
R-1	CEILING	RETURN	100	6/6	6"Ø	LAY-IN	1,2,3
R-2	CEILING	RETURN	185	8/8	8"Ø	LAY-IN	1,2,3
R-3	CEILING	RETURN	260	10/10	10"Ø	LAY-IN	1,2,3
R-4	CEILING	RETURN	470	14/14	12"Ø	LAY-IN	1,2,3
R-5	CEILING	RETURN	600	16/16	12"Ø	LAY-IN	1,2,3
R-6	CEILING	RETURN	850	20/20	14"Ø	LAY-IN	1,2,3

REGISTER. LOUVER AND DIFFUSER SCHEDULE NOTES:

1. MAXIMUM NC = 25 @ MAXIMUM CFM NOTED.

2. SHALL BE PRICE 535 OR EQUAL BY METALAIRE, TITUS, OR KRUEGER.

3. BAKED ENAMEL FINISH WITH COLOR AS DIRECTED BY ARCHITECT.

	DIFFUSER SCHEDULE							
SYMBOL	TYPE	MAX CFM	FACE SIZE	NCK SIZE	CEILING TYPE	BLOW	PATTERN	SCHEDULE NOTES
D-1 CFM	CEILING	110	6X6	6"Ø	LAY-IN	4WAY	₫	1,2,3,4
D-2 CFM	CEILING	200	9X9	8"Ø	LAY-IN	4WAY	₫	1,2,3,4
D-3 CFM	CEILING	380	12X12	10"Ø	LAY-IN	4WAY	4	1,2,3,4

- 1. PROVIDE LAY-IN CEILING AND BORDER / MODULE AS REQUIRED. SEE ARCHITECTURAL CEILING PLANS.
- 2. MAXIMUM NC 25 AT CFM LISTED.
- 3. TRANSITION AS REQUIRED TO DUCT WORK SHOWN ON PLAN.
- 4. PRICE SMD OR EQUAL BY TITUS, METALAIRE, OR KRUEGER.

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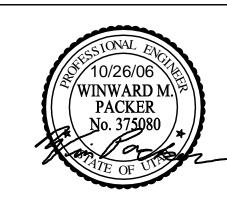
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MARK	MARK DATE DESCRIPTION					
DFCM	CONTRACT		07	77004		
DFCM	PROJECT 1	VO:		0612	26730	
ARCHI	PLEX PROJ	ECT NO:		06	20.01	
DRAWI	DRAWN BY:					
CHECKED BY:						
SCALE	SCALE:					
DATE: October					2006	

SHEET TITLE

KEY PLAN

MECHANICAL SCHEDULES

ME601

	EQUIPMENT SCHEDULE														
								WIF	RES	00	PD	REF	F. NO	TES	
UNIT #	FUNCTION	LOAD	VOLT	PHASE	FULL LOAD AMPS	CONDUIT	NO. SETS	ON	SIZE	TYPE	AMPS	STARTER	DISCONNECT	OTHER	REMARKS
EF-1	EXHAUST FAN	45 W	120	1	0.44	3/4"	1	2	12	СВ	20	4A			

NOTES:

- NON-FUSED DISCONNECT SWITCH 2. FUSED DISCONNECT SWITCH
- 3. BREAKER IN ENCLOSURE
- 4. MANUAL STARTER W/THERMAL OVERLOAD 5. MAGNETIC STARTER
- 6. MAGNETIC STARTER/NON-FUSED DISCONNECT COMBINATION
- 7. MAGNETIC STARTER/FUSED DISCONNECT COMBINATION 8. MAGNETIC STARTER/BREAKER COMBINATION
- 9. VARIABLE FREQUENCY DRIVE
- 10. REDUCED VOLTAGE STARTER 11. DIRECT CONNECTION
- 12. RECEPTACLE/SPECIAL PURPOSE OUTLET/ETC. 13. TWO-SPEED STARTER, COORDINATE W/MOTOR TYPE
- A. FURNISHED, INSTALLED, AND CONNECTED UNDER DIVISION 16 B. FURNISHED AND INSTALLED UNDER ANOTHER DIVISION REQUIRING
- CONNECTION UNDER DIVISION 16. C. FURNISHED UNDER ANOTHER DIVISION BUT INSTALLED AND
- CONNECTED UNDER DIVISION 16. D. FURNISHED, INSTALLED AND CONNECTED UNDER ANOTHER DIVISION.
- OVER CURRENT PROTECTIVE DEVICES
- CB = CIRCUIT BREAKER THERMAL MAGNETIC
- FN = FUSE NON INDUCTIVE LOADFI = FUSE - INDUCTIVE LOAD
- MO = MAGNETIC ONLY CIRCUIT BREAKER

	FIXTU	JRE SCHEDULE		
TYPE	DESCRIPTION	CATALOG NUMBER	VOLTS	LAMPS
А	2X4 LAY IN TROFFER WITH ACRYLIC	COLUMBIA: ST824-332G-FSA12.125-3EB8LHUNV	UNV	(3) F032/835
	PRISMATIC LENS			
A1	2X2 LAY IN TROFFER WITH ACRYLIC	COLUMBIA: ST822-217G-FSA12.125-EB8LHUNV	UNV	(2) F017/835
	PRISMATIC LENS			
В	2X4 LAY-IN PARABOLIC WITH	COLUMBIA: P4D24-332G-MA36-S-EB8LHUNV	UNV	(3) F032/835
	MATTE ALUM LOUVERS (DUAL LEVEL)			
С	2 FOOT SURFACE MOUNTED WRAPAROUND	COLUMBIA: WC2-217-EB8LHUNV	UNV	(2) F017/835
	WITH ACRYLIC PRISMATIC LENS			
X1	CAST ALUMINUM LED EXIT SIGN WITH	DUAL LITE: SESGBN	UNIV	INCLUDED
	GREEN LETTERS AND BLACK HOUSING			
	(AC ONLY)			

DEMOLITION NOTES

- 1. COORDINATE ALL NEW ELECTRICAL EQUIPMENT REQUIREMENTS AND MAKE CONNECTION TO EXISTING SYSTEMS. THIS INCLUDES LIGHTING, POWER, SIGNAL, RACEWAY AND OTHER SYSTEMS INCLUDED UNDER DIVISION 16.
- 2. RELOCATE, REWIRE AND/OR RECONNECT EXISTING ELECTRICAL DEVICES AND/OR EQUIPMENT THAT FOR ANY REASON OBSTRUCTS CONSTRUCTION.
- 3. CONCEAL ALL RACEWAY AND WIRING IN EXISTING WALLS, CEILINGS, FLOORS, ETC. EXCEPT WHERE THE USE OF SURFACE METAL RACEWAYS (E.G. WIRE MOLD) IS INDICATED ON DRAWINGS OR IN SPEC.
- 4. EXISTING RACEWAYS MAY BE REUSED (IN PLACE) WHERE POSSIBLE, AND WHERE IN COMPLIANCE WITH THE SPECIFICATIONS AND THE INTENT OF THE CONTRACT DOCUMENTS. INSURE INTEGRITY OF EXISTING RACEWAY BEFORE REUSE.
- 5. REMOVE ALL RACEWAYS, CONDUCTORS, BOXES, DEVICES, EQUIPMENT, ETC. THAT ARE NOT TO BE REUSED.
- 6. REMOVE EXISTING LIGHT FIXTURES, PLACE IN CARTON, LABEL APPROPRIATELY, AND RETURN TO OWNER, OR PROPERLY DISPOSE OF FIXTURES THAT THE OWNER CHOOSES NOT TO KEEP. DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOFS, ETC.
- DISCONNECT AND RECONNECT ANY/ALL FIXTURES, DEVICES, EQUIPMENT, ETC. REQUIRED FOR 8. PROPER COMPLETION OF THE WORK.

GENERAL NOTES

- 1. CONSULT ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL LIGHTING
- 2. VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGH IN. CONSULT ALL APPLICABLE CONTRACT DRAWINGS AND SHOP DRAWINGS TO INSURE NEC CODE CLEARANCES REQUIRED AROUND ALL ELECTRICAL EQUIPMENT.
- 3. CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENTS, ETC.) OF EQUIPMENT FURNISHED UNDER DIVISION 15 WITH APPROVED MECHANICAL SHOP DRAWINGS BEFORE BEGINNING ROUGH IN.
- 4. SEE SPECIFICATIONS FOR REQUIRED COORDINATION MEETINGS WITH MECHANICAL AND CEILING CONTRACTORS.
- 5. SEE APPLICABLE SHOP DRAWINGS FOR ROUGH IN LOCATION OF ALL EQUIPMENT, WIRING DEVICES, ETC. WHERE APPLICABLE MOUNT ALL WIRING DEVICES ABOVE BACK SPLASH EXCEPT THOSE SERVING UNDER COUNTER EQUIPMENT.
- 6. SEE SPECIFICATION FOR ENERGY SAVING LAMP AND BALLAST REQUIREMENTS.
- 7. FINISHES OF ALL LIGHT FIXTURES SHALL BE AS SELECTED BY ARCHITECT.
- 8. THE ELECTRICAL CONTRACTOR SHALL NOTIFY AND COOPERATE WITH THE MECHANICAL CONTRACTOR SUCH THAT NO PIPING, DUCTS, OR EQUIPMENT FOREIGN TO THE OPERATION OF THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE INSTALLED IN, ENTER OR PASS THRU ELECTRICAL ROOMS OR SPACES, OR ABOVE OR BELOW ELECTRICAL EQUIPMENT IN
- 9. ELECTRICAL BOXES SHALL NOT BE LOCATED IN MASONRY COLUMNS IN BRICK WALLS OR IN GROUTED CELLS ADJACENT TO OPENINGS. COORDINATE LOCATION OF BOXES WITH MASONRY CONTRACTOR.
- 10. ALL PENETRATIONS OF FIRE RATED FLOORS, WALLS, AND CEILINGS SHALL BE SEALED WITH APPROVED MATERIAL TO MAINTAIN FIRE RATING OF SURFACE PENETRATED.
- 11. CIRCUITS EXTENDING OVER 70' FOR 120 VOLT AND 165' FOR 277 VOLT 20 AMP CIRCUITS SHALL BE RUN WITH MINIMUM #10 CONDUCTORS.

ELECTRICAL SYMBOL SCHEDULE

- SEE FIXTURE SCHEDULE FOR TYPE, MOUNTING AND WATTAGE.

 HEIGHT MEASURED TO TOP LINE OF THE BOX FROM THE FINISH FLOOR.

 REFER TO DRAWINGS FOR DIRECTIONAL ARROWS.

 SUBSCRIPT KEYS SWITCH TO FIXTURES CONTROLLED.

 NEMA TYPE 'ND' NON-FUSED UNLESS NOTED 'F' (FUSED). USE 'HD' 480 V.

 HEIGHT TO BE THE LOWER OF EITHER 80" A.F.F. OR 6" BELOW CEILING.

 PROVIDE H.O.A. AND S.S. PUSHBUTTONS AS REQUIRED.

 DOUBLE ARROWS DENOTE A DOUBLE FACE UNIT.

- COORDINATE WITH MILLWORK SHOP DRAWINGS AND ELEVATIONS FOR HEIGHT.
- 10. SUBSCRIPT DENOTES NEMA CONFIGURATION. 11. HEIGHT MEASURED TO BOTTOM OF THE BOX FROM FINISH FLOOR.

SYMBOL

STANDARD MOUNTING HEIGHT UNLESS OTHERWISE NOTED ON PLANS NOTES DESCRIPTION

CLIENT

DESIGNER

CONSULTANTS

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		HEIGHT	
	ONE CIRCUIT, TWO WIRE HOME RUN TO PANEL		
	2 CIRCUIT, 3 WIRE, COMMON NEUTRAL HOME RUN		
	3 CIRCUIT, 4 WIRE, COMMON NEUTRAL HOME RUN		
	CONDUIT RUN CONCEALED IN WALL OR CEILING		
	CONDUIT RUN CONCEALED IN FLOOR OR GROUND		
	CONDUIT UP		
•	CONDUIT DOWN		
	CONDUIT STUB LOCATION	CAP CONDUIT	
	CEILING LIGHT FIXTURE	CEILING	1.
Ю	WALL LIGHT FIXTURE	AS NOTED	1.
0	FLUORESCENT LIGHT FIXTURE	AS NOTED	1
	FLUORESCENT EGRESS LIGHT FIXTURE	AS NOTED	UNSWITCHED
\otimes	CEILING MOUNTED EXIT LIGHT	CEILING	1.3.8.
$+\otimes$	WALL MOUNTED EXIT LIGHT	AS NOTED	1.3.8.
\$	SINGLE POLE SWITCH	+4'-0"	2.
\$ a	SINGLE POLE SWITCH	+4'-0"	4. 2.
\$3	THREE-WAY SWITCH	+4'-0"	2.
\$4	FOUR-WAY SWITCH	+4'-0"	2.
\Rightarrow	DUPLEX RECEPTACLE	+16" OR AS NOTED	9. 11.
\Rightarrow_A	DUPLEX RECEPTACLE		9.
₩	ELECTRIC WATER COOLER RECEPTACLE		SEE DIAGRAM
	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE	+16" OR AS NOTED	9. 11.
ы	i e e e e e e e e e e e e e e e e e e e	146" 00	

AS NOTED 9. 11. +46" OR +16" OR AS NOTED 9. 11. +16" OR AS NOTED 9. 11.

+16" OR AS NOTED 9. 11.

AS NOTED

CEILING

+6'-8"

CEILING



ISSUE		
MARK	DATE	DESCRIPTION
		ISSUE MARK DATE

DFCM CONTRACT NO:	077005
DFCM PROJECT NO:	06128730
BNA PROJECT NO:	06266SG.01
DRAWN BY:	
CHECKED BY:	
SCALE:	AS NOTED
DATE:	OCTOBER 27, 2006
KEY PLAN	

SHEET TITLE

SYMBOLS, NOTES AND SCHEDULES

EG101

MANUAL STARTER THERMAL OVERLOAD SWITCH WITH PILOT LIGHT | +4'-0"

INDEX OF ELECTRICAL DRAWINGS EG101 SYMBOLS, NOTES AND SCHEDULES

EG102 ELECTRICAL SPECIFICATIONS EE101 ELECTRICAL DEMOLITION PLAN

EL101 NEW LIGHTING PLAN

FOURPLEX RECEPTACLE

TELEPHONE OUTLET

TELEPHONE/DATA OUTLET

MAIN DISTRIBUTION PANEL

ARCHITECTURAL ROOM NUMBER

FIRE ALARM SIGNAL HORN/STROBE

LIGHT FIXTURE (LETTER DESIGNATES TYPE)

JUNCTION BOX ('F' IN FLOOR)

PLUGMOLD

/\)/

842

DATA OUTLET

MOTOR OUTLET

PANEL BOARD

TELEPHONE TERMINAL BOARD

SMOKE DETECTOR

EQUIPMENT NUMBER

HEAT DETECTOR

EP101 NEW POWER PLAN

EX101 ELECTRICAL DIAGRAMS

ELECTRICAL SPECIFICATIONS

GENERAL PROVISIONS

A. REFERENCE

- 1. THE GENERAL CONDITIONS AND OTHER CONTRACT DRAWINGS AS SET FORTH IN THE FOREGOING PAGES ARE HEREBY INCORPORATED INTO AND BECOME A PART OF THE SPECIFICATIONS FOR WORK UNDER THIS TITLE, INSOFAR AS THEY APPLY HERETO.
- ALL SPECIFICATIONS UNDER THIS DIVISION TITLE ARE DIRECTED TO AND ARE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. UNLESS OTHER TRADES OR PERSONS ARE SPECIFICALLY MENTIONED, "ELECTRICAL CONTRACTOR" IS INFERRED AND INTENDED.

B. CONTRACT DRAWINGS

- 1. THE DRAWINGS ACCOMPANYING THESE SPECIFICATIONS ARE COMPLEMENTARY EACH TO THE OTHER AND WHAT IS CALLED FOR BY ONE SHALL BE AS IF CALLED FOR BY BOTH.
- CONSULT ALL CONTRACT DRAWINGS WHICH MAY AFFECT THE LOCATION OF EQUIPMENT, CONDUIT AND WIRING AND MAKE MINOR ADJUSTMENTS IN LOCATION TO SECURE COORDINATION.
- WIRING LAYOUT IS SCHEMATIC AND EXACT LOCATIONS SHALL BE DETERMINED BY FIELD CONDITIONS.
- OTHER THAN MINOR ADJUSTMENTS SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE PROCEEDING WITH THE WORK.

C. JOB-SITE COPY OF DOCUMENTS

MAINTAIN AT THE SITE, ONE COPY OF ALL DRAWINGS, SPECIFICATIONS, ADDENDA APPROVED SHOP DRAWINGS. CHANGE ORDERS AND OTHER MODIFICATIONS. IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES MADE DURING CONSTRUCTION. THESE SHALL BE AVAILABLE TO THE OWNER'S REPRESENTATIVE. THE DRAWINGS MARKED O RECORD ALL CHANGES MADE DURING CONSTRUCTION SHALL BE DELIVERED TO THE OWNER'S REPRESENTATIVE FOR THE OWNER UPON COMPLETION OF THE WORK. AN ADDITIONAL SET OF DRAWINGS WILL BE FURNISHED BY THE OWNER'S REPRESENTATIVE FOR THIS PURPOSE UPON REQUEST

D. MANUFACTURER'S DRAWINGS

1. THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT FOR REVIEW, (6) COPIES OF MANUFACTURER'S DRAWINGS AND WIRING DIAGRAMS. THE ENGINEER WILL REVIEW CONTRACTOR'S SHOP DRAWINGS AND RELATED SUBMITTALS (AS INDICATED BELOW) WITH RESPECT TO THE ABILITY OF THE DETAILED WORK, WHEN COMPLETE, TO BE A PROPERLY FUNCTIONING INTEGRAL ELEMENT OF THE OVERALL SYSTEM DESIGNED BY THE ENGINEER. BEFORE SUBMITTING A SHOP DRAWING OR ANY RELATED MATERIAL TO THE ENGINEER, CONTRACTOR SHALL: REVIEW EACH SUCH SUBMISSION FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND OPERATIONS OF CONSTRUCTION, AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF CONTRACTOR: APPROVE EACH SUCH SUBMISSION BEFORE SUBMITTING IT: AND SO STAMP EACH SUCH SUBMISSION BEFORE SUBMITTING IT. THE ENGINEER SHALL ASSUME THAT NO SHOP DRAWING OR RELATED SUBMITTAL COMPRISES A VARIATION UNLESS CONTRACTOR ADVISES ENGINEER OTHERWISE VIA A WRITTEN INSTRUMENT WHICH IS ACKNOWLEDGED BY ENGINEER IN WRITING. THE ITEMS, TYPES OF

SUBMITTALS AND RELATED MATERIAL (IF ANY) CALLED FOR ARE INDICATED BELOW:

<u>ITEMS</u>
LIGHTING AND POWER PANELS
LIGHTING FIXTURES
LIGHTING CONTROL EQUIPMENT
EMERGENCY LIGHTING EQUIPMENT

TYPE SUBMITTALS REQUIRED SHOP DRAWINGS CATALOG CUTS CATALOG CUTS

CATALOG CUTS

E. GUARANTEES

1. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEFECTS, REPAIRS AND REPLACEMENTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER DATE OF SUBSTANTIAL COMPLETION AS DETERMINED BY THE OWNER'S REPRESENTATIVE. PRODUCT GUARANTEES GREATER THAN ONE (1) YEAR SHALL BE PASSED ALONG TO THE OWNER FOR FULL BENEFIT OF THE MANUFACTURER'S WARRANTY.

A. INSTALLATION, MATERIALS, AND WORKMANSHIP

- 1. FURNISH AND INSTALL ALL NECESSARY ANCHORS, SUPPORTS, STRAPS, BOXES, FITTINGS AND OTHER SIMILAR APPURTENANCES NOT INDICATED ON THE DRAWINGS BUT WHICH ARE REQUIRED FOR A COMPLETE AND PROPERLY INSTALLED SYSTEM CONSISTENT WITH THE ARCHITECTURAL TREATMENT OF THE BUILDING.
- THE ELECTRICAL CONTRACTOR, INSOFAR AS THE WORK IS CONCERNED, SHALL AT ALL TIMES KEEP THE PREMISES IN A NEAT AND ORDERLY CONDITION, AND AT THE COMPLETION OF THE WORK, SHALL PROPERLY CLEAN UP AND CART AWAY DEBRIS AND EXCESS MATERIALS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF DUMPSTER & REFUSE DISPOSAL AS REQUIRED FOR ELECTRICAL WORK.
- ALL MATERIALS SHALL BE NEW AND UNDETERIORATED AND OF A QUALITY NOT LESS THAN THE MINIMUM SPECIFIED.

B. COORDINATION OF PLANS AND SPECIFICATIONS

CONTACT THE OWNER'S REPRESENTATIVE IMMEDIATELY IF THERE IS ANY QUESTIONS REGARDING THE MEANING OR INTENT OF EITHER PLANS OR SPECIFICATIONS, OR UPON NOTICING ANY DISCREPANCIES OR OMISSIONS IN EITHER PLANS OR SPECIFICATIONS.

C. CUTTING AND PATCHING

- 1. PATCHING SHALL MATCH EXISTING SURFACES IN KIND AND FINISH AND SHALL BE DONE BY THE GENERAL CONTRACTOR AT THE ELECTRICAL CONTRACTOR'S EXPENSE.
- REPAIR OF DAMAGES, BY THE ELECTRICAL CONTRACTOR, TO NEWLY PATCHED AND REFINISHED AREAS SHALL BE DONE BY THE GENERAL CONTRACTOR AT THE ELECTRICAL CONTRACTOR'S EXPENSE, TO MATCH EXISTING CONDITION.
- 3. WHERE REQUIRED TO MAINTAIN FIRE RATING, OPENINGS SHALL BE SEALED UTILIZING 3M BRAND FIRE BARRIER PENETRATION SEALING SYSTEMS. FIRE BARRIER OR FIRE STOP SYSTEMS FROM CROUSE-HINDS, THOMAS & BETTS OR DOW CORNING MAY BE USED AT CONTRACTOR'S OPTION. THIS INCLUDES HOLES LEFT DUE TO REMOVAL OF EXISTING CONDUITS, BUS DUCT, ETC. OPENINGS SHALL BE TEMPORARILY FIRE STOPPED UNTIL PERMANENT FIRE STOPPING IS DONE.

D. CLEANING AND PAINTING

- ALL ELECTRICAL EQUIPMENT SHALL BE KEPT DRY AND CLEAN DURING THE CONSTRUCTION PERIOD. INTERIOR OF ALL ENCLOSURES SHALL BE CLEANED OF DIRT AND DEBRIS BEFORE INSTALLING TRIM OR COVERS.
- ALL FINISHED SURFACES OF EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE THOROUGHLY CLEANED OF DIRT AND ALL SCRATCHED OR DAMAGED SURFACES SHALL BE TOUCHED UP WITH MATCHING MATERIALS BEFORE FINAL ACCEPTANCE OF THE WORK.
- 3. WHEN ALL WORK IS COMPLETED AND ALL WORK HAS BEEN SATISFACTORILY TESTED AND ACCEPTED BY THE OWNER'S REPRESENTATIVE, ALL CONDUIT AND OTHER EXPOSED SURFACES SHALL BE THOROUGHLY CLEANED.

CODES AND FEES

A. CODES:

- 1. ALL WORK PERFORMED UNDER THIS SPECIFICATION SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AS PREPARED AND PUBLISHED BY THE NATIONAL FIRE PROTECTION ASSOCIATION AND ANY APPLICABLE STATE OR LOCAL CODES.
- 1. OBTAIN AND PAY FOR ANY AND ALL PERMITS REQUIRED BY ALL LAWS AND REGULATIONS AND PUBLIC AUTHORITY HAVING SUCH JURISDICTION.

TESTS AND INSPECTIONS

- A. OBTAIN ALL INSPECTIONS REQUIRED BY ALL LAWS, ORDINANCES, RULES, REGULATIONS OR PUBLIC AUTHORITY HAVING JURISDICTION AND OBTAIN CERTIFICATES OF SUCH INSPECTIONS AND SUBMIT SAME TO THE OWNER'S REPRESENTATIVE. PAY ALL FEES, CHARGES AND OTHER EXPENSES IN CONNECTION THEREIN. OBTAIN OCCUPANCY PERMIT AS REQUIRED BY OWNER. FINAL PAYMENT SHALL NOT BE MADE UNTIL OCCUPANCY PERMIT IS OBTAINED.
- B. WORK SHALL BE UNACCEPTABLE WHEN FOUND TO BE DEFECTIVE OR CONTRARY TO THE PLANS SPECIFICATIONS, CODES SPECIFIED OR ACCEPTED STANDARDS OF GOOD WORKMANSHIP.
- C. THE CONTRACTOR SHALL PROMPTLY CORRECT ALL WORK FOUND UNACCEPTABLE BY THE BY THE OWNER'S REPRESENTATIVE WHETHER OBSERVED BEFORE OR AFTER SUBSTANTIAL COMPLETION AND WHETHER OR NOT FABRICATED, INSTALLED OR COMPLETED. THE CONTRACTOR SHALL BEAR ALL COSTS OF CORRECTING SUCH UNACCEPTABLE WORK, INCLUDING COMPENSATION FOR THE OWNERS REPRESENTATIVE ADDITIONAL SERVICES MADE NECESSARY THEREBY.

- A. FURNISH AND INSTALL ALL CONDUITS, BOXES, FITTINGS, ETC., FOR A COMPLETE RACEWAY
- B. ALL WIRING SHALL BE RUN IN EMT CONDUIT OR MC WITH GROUND CONDUCTOR UNLESS OTHERWISE NOTED.
- C. ALL CONDUIT SIZES STATED HEREIN OR MARKED ON THE DRAWINGS ARE MINIMUM SIZE AND SHALL BE NO LESS THAN 3/4" UNLESS OTHERWISE NOTED.
- D. ALL CONDUIT SHALL BE SUBSTANTIALLY SUPPORTED BY PIPE STRAPS OR SUITABLE CLAMPS OR HANGERS ATTACHED TO THE ELEMENTS OF THE BUILDING STRUCTURE TO PROVIDE RIGID INSTALLATION: IN NO CASE SHALL CONDUIT BE ATTACHED OR SUPPORTED FROM ADJOINING PIPE OR INSTALLED IN SUCH A MANNER AS TO PREVENT THE READY REMOVAL OF OTHER PIPE FOR REPAIRS.

WIRE AND CABLE

- A. ALL CONDUCTORS SHALL BE COPPER AND OF THE AWG SIZE AND TYPE SHOWN ON THE DRAWINGS. WHERE NO SIZE OR TYPE IS SHOWN, CONDUCTORS SHALL NOT BE LESS THAN #12 TYPE XHHW, THHN, OR THWN. CONDUCTORS #8 AWG AND LARGER SHALL BE STRANDED COPPER AND HAVE 600 VOLT INSULATION; BE UL LABELED AND OF AMERICAN MANUFACTURER.
- B. ALL CONNECTIONS ARE TO BE MADE USING PRESSURE TYPE TERMINALS.
- C. THE FOLLOWING COLOR CODE SHALL BE USED:

–			
			120/208 VOL
	PHASE	Α	BLACK
	PHASE	В	RED
	PHASE	С	BLUE
	NEUTRA	\L	WHITE
	GROUN	D	GREEN

- D. CONDUCTORS NO. 10 AWG OR SMALLER SHALL HAVE INSULATION COLORED AS NOTED ABOVE.
- E. CONDUCTORS NO. 8 AWG OR LARGER SHALL HAVE INSULATION COLORED AS NOTED ABOVE OR COLORED TAPE, MINIMUM SIZE 1/2", WRAPPED TWICE AROUND AT THE FOLLOWING POINTS:
- 1) AT FACH TERMINAL) AT EACH CONDUIT ENTRANCE
- AT INTERVALS NOT MORE THAN 12 INCHES APART IN ALL BOXES, PANEL TUBS, SWITCHBOARDS, ETC.
- F. ALL BRANCH CIRCUITS SHALL BE MARKED IN THE PANELBOARD GUTTERS. MARKERS SHALL INDICATE CORRESPONDING BRANCH-CIRCUIT NUMBERS.
- G. EACH BRANCH CIRCUIT REQUIRING A NEUTRAL SHALL BE FURNISHED WITH A SEPARATE INDIVIDUAL NEUTRAL CONDUCTOR.

BOXES AND PLATES

- A. FURNISH AND INSTALL ALL OUTLET, JUNCTION, AND PULLBOXES AS INDICATED ON THE DRAWINGS AND AS NECESSARY TO INSTALL THE REQUIRED CONDUIT AND WIRING IN A NEAT AND WORKMANLIKE MANNER.
- PULLBOXES AND JUNCTION BOXES SHALL BE GALVANIZED AND OF THE CORRECT SIZE AND GAUGE, SIZED IN ACCORDANCE WITH CODE REQUIREMENTS AND SHALL BE U.L. LABELED. ANY JUNCTION COXES CONTAINING 3 OR MORE CONDUITS MUST BE 4-11/16" SQ BY 2-1/8"
- C. FLUSH OUTLET, JUNCTION AND PULLBOXES SHALL BE PRESSED STEEL GALVANIZED OR SHERARDIZED AND SHALL BE A MINIMUM OF 4" SQUARE BY 2-1/8" DEEP OR OCTAGONAL SIMILAR TO APPLETON #40. STEEL BOXES CAST IN CONCRETE SHALL BE DESIGNED FOR CONCRETE INSTALLATION
- D. FLUSH WALL BOXES IN TILE, MARBLE, BRICK OR OTHER FINISHED MASONRY WALLS SHALL BE STEEL CITY GW-135-C SERIES OR RACO 695 SERIES.
- E. BOXES AT EXTERIOR AREAS TO BE WATERTIGHT AND DUST-TIGHT WITH GASKETED COVERS.
- F. ALL BOXES FOR EXPOSED WORK IN FINISHED SPACES SHALL BE "FS" TYPE WITH THREADED HUBS WITH RIGID CONDUIT RISER (DEEP WIREMOLD BOXES). G. SWITCH PLATES ON FLUSH AND CAST BOXES SHALL BE SIERRA NOS. S-IN, (P-1), S-2N
- (P-2), S-3N (P-3) ETC., AS REQUIRED, AND SHALL BE MADE OF SATIN FINISH #302
- H. DUPLEX RECEPTACLE PLATES ON FLUSH AND CAST BOXES SHALL BE SIERRA NO. S-8N (P-8) SATIN FINISH #302 STAINLESS STEEL.
- I. ALL BOXES SHALL BE RIGIDLY SUPPORTED FROM BUILDING STRUCTURE INDEPENDENT OF THE CONDUIT SYSTEM. BOXES CAST INTO MASONRY OR CONCRETE ARE CONSIDERED TO BE RIGIDLY SUPPORTED. IDENTIFY ALL JUCTION BOXES, RECEPTACLE OUTLET BOXES ETC. WITH CIRCUIT #S CONTAINED WITHIN BOX.

WIRING DEVICES

- A. WIRING DEVICES SHALL BE SIMILAR TO THOSE LISTED BELOW AND OF SPECIFIED AMPERAGE. OTHER SPECIAL PURPOSE DEVICES SHALL BE AS SPECIFIED ON THE DRAWINGS.
- B. DUPLEX GROUNDING TYPE RECEPTACLE 20 AMP, 125 VOLT -

NEMA 5-20R

ARROW HART - 5352 C. SINGLE POLE SWITCHES - 20 AMP, 120 VOLT

HUBBELL - 1221 ARROW HART - 1221

D. 3-WAY SWITCHES - 20 AMP, 120 VOLT

I SERIES, NEMA 3R COVER

HUBBELL - 1223

ARROW HART - 1273 E. WEATHERPROOF RECEPTACLES - 20 AMP, 125 VOLT -

NEMA 5-20R HUBBELL - 5352 WITH 5205 COVER INTERMATIC GUARDIAN

- ARROW HART 5352 WITH 4500 COVER F. G.F.I. RECEPTACLE - 20 AMP, 125 VOLT - NEMA 5-20R
- HUBBELL GF 5262 WITH MATCHING NYLON COVER PLATE OR WP-26 W.P. COVER
- G. GROUND ALL RECEPTACLES IN ACCORDANCE WITH ARTICLE 250-146 OF NEC AND AS INDICATED IN THE GROUNDING SECTION OF THIS SPECIFICATION.

<u>IDENTIFICATION</u>

- A. EACH PIECE OF SERVICE EQUIPMENT AND INDIVIDUAL SWITCHES, ALL DISCONNECTS, STARTERS, ALL EXHAUST FAN MANUAL STARTING SWITCHES.
- IDENTIFICATION SHALL BE IN THE FORM OF LAMINATED PLASTIC NAMEPLATES, BLACK FACE, WITH THE LETTERS ENGRAVED INTO THE WHITE BACKGROUND, MINIMUM 1/4" HIGH. PLATES SHALL BE DRILLED ON EACH END FOR SHEET METAL SCREW ATTACHMENT. NO "DYMO" OR SIMILAR TYPE LABELS WILL BE ALLOWED.
- C. PANELBOARD DIRECTORY: A TYPED CIRCUIT DIRECTORY SHALL BE PROVIDED INDICATING LOCAL AREA SERVED AND LOCATION FOR EACH BRANCH CIRCUIT

- A. ALL FEEDERS AND BRANCH CIRCUITS OVER 100 VOLTS SHALL INCLUDE A GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH NEC TABLE 250-122, EXCEPT NOT BE SMALLER THAN #12 FOR POWER AND LIGHTING CIRCUITS AND #14 FOR CONTROL CIRCUITS. ALL GROUND CONDUCTORS SHALL BE GREEN, OR AS SPECIFIED UNDER SECTION 16120, "WIRE
- B. ALL GROUND CLAMPS SHALL BE PENN-UNION "GPL" TYPE OR SIMILAR BY O.Z. OR BURNDY.
- CONDUIT FOR SOLITARY GROUND CONDUCTORS SHALL BE RIGID SCHEDULE 40PVC NON-METALLIC ELECTRICAL CONDUIT WITH U.L. LABEL. SOLITARY GROUND CONDUCTORS SHALL NOT BE PLACED THROUGH METALLIC SLEEVES OR CONDUITS AND SHALL NOT BE COMPLETELY ENCIRCLED BY METALLIC HANGERS OR SUPPORTS.
- D. THE GROUND CONDUCTOR SHALL BE CONNECTED TO THE NEUTRAL IN ONLY TWO LOCATIONS - ON THE SUPPLY SIDE OF THE SERVICE DISCONNECT MEANS PER NEC-250-24 AND ON SEPARATELY DERIVED SYSTEMS PER NEC 250-30.
- E. AT EACH RECEPTACLE BOX, THE GROUND CONDUCTOR SHALL ENTER AND CONNECT, WITH NORMAL WIRING CONNECTOR, TO: 1) THE GROUND PIGTAIL TO RECEPTACLE; 2) THE GROUND PIGTAIL TO BOX GROUND SCREW; AND 3) THE OUTGOING GROUND CONDUCTOR TO NEXT DEVICE, IF NOT AT END OF RUN. METAL TO METAL CONTACT BETWEEN THE DEVICE YOKE AND THE OUTLET BOX IS NOT ACCEPTABLE AS A BOND FOR EITHER SURFACE MOUNTED BOXES OR FLUSH TYPE BOXES.
- CONDUIT SYSTEM SHALL BE ELECTRICALLY CONTINUOUS. ALL LOCK NUTS SHALL CUT THROUGH ENAMELED OR PAINTED SURFACES ON ENCLOSURES. WHERE ENCLOSURES AND NON-CURRENT CARRYING METALS ARE ISOLATED FROM THE CONDUIT SYSTEM, USE BONDING JUMPERS WITH APPROVED CLAMPS. WHERE REDUCING WASHERS ARE USED AND WHERE CONCENTRIC OR ECCENTRIC KNOCKOUTS ARE NOT COMPLETELY REMOVED BONDING BUSHINGS SHALL BE REQUIRED.

INTERRUPTION OF SERVICE AND OWNER'S OPERATION

- A. THE ELECTRICAL CONTRACTOR SHALL ORGANIZE HIS WORK SO THAT THESE ALTERATIONS AND ADDITIONS SHALL CAUSE A MINIMUM OF INTERFERENCE AND DISTURBANCE TO THE OWNER. ARRANGEMENTS SHALL BE MADE WITH THE OWNER AND ENGINEER BEFORE INTERRUPTING <u>SERVICE IN ANY AREA.</u> A WRITTEN DETAILED METHOD OF INTERRUPTION PROCEDURE INDICATING ELAPSED TIME REQUIRED AND TIME OF INTERRUPTION SHALL BE PREPARED BY THE ELECTRICAL CONTRACTOR AND SUBMITTED TO THE OWNER FOR APPROVAL.
- B. ALL INTERRUPTIONS OF SERVICE SHALL BE MADE WHEN THE LOAD IS AT A MINIMUM AND SHALL BE SCHEDULED AT THE OWNER'S CONVENIENCE. (SERVICE INTERRUPTIONS WILL BE SCHEDULED FOR OTHER THAN NORMAL DAYTIME WORKING HOURS. THE ELECTRICAL CONTRACTOR SHALL INCLUDE NECESSARY COST FOR OVERTIME LABOR IN ALL BIDS.)
- C. AT NO TIME SHALL THE ELECTRICAL CONTRACTOR OR HIS EMPLOYEES NORMALLY WORKING ON THE PROJECT LEAVE THE FACILITY DURING A TIME WHEN ANY NORMALLY LIVE CIRCUITS OR FEEDERS ARE DISCONNECTED, WITHOUT PERMISSION OF THE ENGINEER.
- D. ALL MATERIALS, CONNECTIONS AND EQUIPMENT FOR TEMPORARY CONTROL OR POWER WIRING TO MAINTAIN CONTINUITY OF SERVICE DURING CONSTRUCTION SHALL BE PROVIDED

POWER AND LIGHTING PANELS

BY THE ELECTRICAL CONTRACTOR.

- A. FURNISH AND INSTALL, AS SCHEDULED AND SHOWN ON THE DRAWINGS, POWER PANELS FOR OPERATION ON VOLTAGES INDICATED.
- B. THE PANELS SHALL BE SQUARE D, TYPE NQOD, NEHB OR I-LINE OR EQUAL, WITH BRANCH BREAKERS AS SCHEDULED ON THE DRAWINGS.
- C. ALL TERMINATIONS SHALL BE MARKED "75°C ONLY", "60/75°C" OR LISTED FOR USE OF 75°C INSULATED CONDUCTORS AT FULL 75°C AMPACITY.
- D. ALL BUS BARS SHALL BE SILVER OR TIN PLATED COPPER.
- CABINETS SHALL BE OF COMMERCIAL GALVANIZED SHEET STEEL, CODE GAUGE AND SIZE SURFACE OR FLUSH MOUNTED AS CALLED FOR IN THE DRAWINGS. FLUSH PANELS SHALL BE FINISHED WITH PRIME COAT ONLY. $\,\,$ DOORS SHALL BE FITTED WITH CHROME PLATED COMBINATION LOCK AND CATCH, AND ALL KEYED ALIKE.
- F. NEUTRAL ASSEMBLY SHALL HAVE INDIVIDUAL ANTI-TURN SOLDERLESS TERMINALS, SIMILAR TO SQUARE D TYPE PK, FOR CONNECTION OF ULTIMATE NUMBER OF NEUTRAL WIRES. SHEET METAL TERMINAL STRIPS AND CONNECTIONS WILL BE REJECTED.
- G. PANEL SHALL HAVE A COPPER GROUND BAR SIMILAR TO NEUTRAL BAR IN NUMBER, SIZE, AND TYPE OF ANTI-TURN SOLDERLESS LUGS. THIS GROUND BAR SHALL BE FACTORY BONDED TO THE PANEL TUB IN THE GUTTER SPACE OPPOSITE THE MAINS AND THE NEUTRAL ASSEMBLY AND SHALL HAVE THE SCREWDRIVER SLOTS FACING THE FRONT OF THE PANEL.
- H. THE MAIN AND BRANCH BREAKERS SHALL BE TYPE GOB OR GOB-H RATED 10.000 A.I.C. MINIMUM, MOLDED CASE, TEMPERATURE COMPENSATED, QUICK-MAKE, QUICK-BREAK, WITH THERMAL-MAGNETIC TRIP AND PERMANENTLY BOLTED TO BUS BARS.
- I. PANELS SHALL BE MOUNTED WITH TOP OF PANEL AT 6'-0" ABOVE FLOOR.

LIGHTING FIXTURES

- A. CONTRACTOR SHALL FURNISH AND INSTALL LIGHTING FIXTURES AND LAMPS AS INDICATED IN FIXTURE SCHEDULE SHOWN ON DRAWINGS, AND SPECIFIED HEREIN.
- B. LENS THICKNESS FOR FLUORESCENT FIXTURES SHALL BE 0.125 INCHES, MINIMUM (NOT NOMINAL) AND HAVE A MINIMUM WEIGHT OF 8.0 OUNCES PER SQUARE FOOT.
- C. LAMP SOCKETS FOR BARE TUBE FLUORESCENT FIXTURES SHALL BE SPRING LOADED
- TURRET TYPE. D. FLUSH FIXTURES MAY BE FURNISHED WITH PRE-WIRED FEATURE PROVIDED THEY ARE U.L. APPROVED FOR 75°C WIRING AND THE JUNCTION BOX CAPACITY IS SUFFICIENT

FOR THE CIRCUIT WIRING REQUIREMENTS.

- E. CLEARANCES FOR RECESSED PORTIONS OF FIXTURES FROM COMBUSTIBLE MATERIAL AND THERMAL INSULATION, SHALL BE IN ACCORDANCE WITH NEC ARTICLE 410-66.
- F. ALL FLUORESCENT LAMP BALLAST SHALL BE ELECTRONIC WITH LESS THAN 20% HARMONIC DISTORTION. BALLAST SOUND LEVELS SHALL NOT EXCEED CLASS "A", AMBIENT NOISE LEVELS, HPF TYPE, WITH PARALLELING WIRING CONNECTION, BE CBM AND U.L. APPROVED. BALLAST MAY BE MANUFACTURED BY ADVANCE, TYPE MARK V; ETTA INDUSTRIES TYPE E2P; OR MAGNETEK-TRIAD, B SERIES; OR MOTOROLA TYPE MOTRN.
- G. NEUTRAL ASSEMBLY SHALL HAVE INDIVIDUAL ANTI-TURN SOLDERLESS TERMINALS, SIMILAR TO SQUARE D TYPE PK, FOR CONNECTION OF ULTIMATE NUMBER OF NEUTRAL WIRES. SHEET METAL TERMINAL STRIPS AND CONNECTIONS WILL BE REJECTED.
- H. PANEL SHALL HAVE A COPPER GROUND BAR SIMILAR TO NEUTRAL BAR IN NUMBER, SIZE, AND TYPE OF ANTI-TURN SOLDERLESS LUGS. THIS GROUND BAR SHALL BE FACTORY BONDED TO THE PANEL TUB IN THE GUTTER SPACE OPPOSITE THE MAINS AND THE NEUTRAL ASSEMBLY AND SHALL HAVE THE SCREWDRIVER SLOTS FACING THE FRONT OF THE PANEL.

- I. ALL LAMP HOLDERS INSTALLED BY THE ELECTRICAL CONTRACTOR SHALL BE FURNISHED COMPLETE WITH NEW LAMPS OF THE SIZE INDICATING ON THE FIXTURE SCHEDULE.
- K. LAMP CURRENT CREST FACTOR SHALL NOT EXCEED 1.8 AND SHALL BE COMPATIBLE WITH BALLAST BEING UTILIZED.
- M. ALL LAMPS SHALL BE IN WORKING ORDER AT THE TIME OF FINAL ACCEPTANCE OF THE
- N. ALL LIGHTING FIXTURES ARE TO BE GROUNDED ON THE INTERIOR OF THE FIXTURE HOUSING, ON CLEAN BARE METAL (FREE OF PAINT), BY USE OF A PIGTAIL AND FASTENED BY A SCREW USED FOR NO OTHER PURPOSE.
- SYSTEM OF THE GRID TYPE, EACH FIXTURE SHALL HAVE A SUPPORT WIRE AT OPPOSITE CORNER OF EACH RECESSED FIXTURE. EACH FIXTURE SHALL BE FASTENED TO THE GRID SYSTEM IN ACCORDANCE WITH NEC ARTICLE 410-16(C) USING SUITABLE CLIPS. THE T-BAR SHALL NOT BE CUT OUT TO PROVIDE ROOM FOR THE JUNCTION BOX.

- A. GENERAL: EXCEPT AS OTHERWISE INDICATED, PROVIDE MOTOR STARTERS, DISCONNECT SWITCHES, WHICH COMPLY WITH MANUFACTURER'S STANDARD MATERIALS, DESIGN AND CONSTRUCTION IN ACCORDANCE WITH PUBLISHED INFORMATION AND AS REQUIRED FOR COMPLETE INSTALLATIONS.
- B. HEAVY DUTY SWITCHES: PROVIDE HEAVY-DUTY TYPE, SHEET-STEEL ENCLOSED SWITCHES, FUSIBLE OR NON-FUSIBLE AS INDICATED OF TYPES, SIZES AN ELECTRICAL CHARACTERISTICS AS REQUIRED BY APPLICATION. EQUIP WITH OPERATING HANDLE WHICH IS CAPABLE OF BEING PADLOCKED IN 'OFF' POSITION. PROVIDE NEMA 1 OR NEMA 3R AS REQUIRED BY APPLICATION, UNLESS NOTED. PROVIDE FUSIBLE SWITCHES WITH CLASS R REJECTION FUSE CLIP KITS.
- C. THERMAL OVERLOAD UNITS: PROVIDE THERMAL OVERLOAD UNITS, SIZED TO ACTUAL RUNNING FULL LOAD CURRENT, NOT TO MOTOR PLATE CURRENT. SIZE HEATERS FOR MECHANICAL

EQUIPMENT AFTER AIR AND WATER BALANCING HAVE BEEN COMPLETED.

- SINGLE-PHASE, 1 AND 2 POLE, 300 VOLT AC MAX, FRACTIONAL HP MOTOR STARTERS. OF OVERLOAD RELAY WITH FIELD ADJUSTMENT CAPACITY OF PLUS OR MINUS 10 PERCENT OF NOMINAL OVERLOAD HEATER RATING; FOR PROTECTION OF AC MOTORS OF 1 HP AND LESS. FREE TOGGLE MECHANISMS, GREEN PILOT LIGHTS, AND WITH LOCK-OFF TOGGLE OPERATED HANDLE MOUNT SURFACE UNITS IN NEMA 1 ENCLOSURES UNLESS NOTED OTHERWISE PROVIDE NEMA 3R ENCLOSURE IN EXTERIOR OR DAMP LOCATION UNLESS NOTED OTHERWISE. PROVIDE FLUSH MOUNTED UNITS WITH COVERPLATE TO MATCH WIRING DEVICE COVERPLATES.
- E. AC LINE VOLTAGE MANUAL STARTERS (EQUAL TO SQUARE D CLASS 2510): PROVIDE LINE VOLTAGE MANUAL STARTERS, OF TYPES, RATINGS AND ELECTRICAL CHARACTERISTICS INDICATED; 2 OR 3 POLE, 600 VOLT AC MAX; EQUIP WITH PUSHBUTTON OPERATOR, LOW VOLTAGE PROTECTION FEATURE, AND GREEN PILOT LIGHT. PROVIDE STARTERS WITH TRIP FREE MECHANISM SUCH THAT CONTACTS WILL TRIP UNDER LOAD AND REMAIN OPEN UNTIL THERMAL ELEMENT HAS COOLED, AND UNIT IS RESET, MOUNT SURFACE UNITS IN NEMA 1 ENCLOSURE. UNLESS NOTED OTHERWISE. PROVIDE NEMA 3R ENCLOSURE IN EXTERIOR OR DAMP LOCATION, UNLESS NOTED OTHERWISE. PROVIDE OVERLAPPING TRIM FOR FLUSH MOUNTED UNITS.
- F. AC COMBINATION NON-REVERSING MAGNETIC STARTERS (EQUAL TO SQUARE D CLASS 8538) PROVIDE LINE VOLTAGE COMBINATION STARTERS, OF TYPES, RATINGS, AND ELECTRICAL PROVIDE QUICK-MAKE, QUICK-BREAK, DISCONNECT FOR NEMA SIZES 1, 2, 3, AND 4; AND FUSE KITS. PROVIDE COMBINATION STARTERS FOR INDIVIDUAL MOUNTING, OR FOR GROUP OTHERWISE INDICATED. PROVIDE NEMA 3R ENCLOSURE IN EXTERIOR OR DAMP LOCATIONS, UNLESS NOTED OTHERWISE.
- A. PROVIDE POWER AND CONNECT ALL MOTORS AND MOTOR DRIVEN EQUIPMENT SHOWN ON THE
- C. MOTORS AND MOTOR DRIVEN EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY OTHERS. MOTOR STARTERS, CONTROLLERS AND CONTROL DEVICES SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR EXCEPT AS OTHERWISE NOTED.
- D. INSTALL AND WIRE ALL MOTOR EQUIPMENT PER WIRING DIAGRAMS AND INSTRUCTIONS FURNISHED TO HIM, INCLUDING INTERLOCK WIRING BETWEEN EQUIPMENT.

THE ELECTRICAL CONTRACTOR EXCEPT AS OTHERWISE NOTED.

- A. FURNISH AND INSTALL COMPLETE COMMUNICATIONS CONDUIT SYSTEM, INCLUDING RISER, COMMUNICATIONS CABINETS, JUNCTION BOXES AND COMMUNICATIONS OUTLETS AS REQUIRED.
- C. COMMUNICATIONS OUTLET BOXES SHALL BE MINIMUM OF 4" SQUARE AND PLATES SHALL MATCH
- D. BENDS IN CONDUITS SHALL BE LONG SWEEP BENDS.
- E. NO WIRING SHALL BE INCLUDED IN THE COMMUNICATIONS CONDUIT SYSTEM, EXCEPT #14 NYLON PULL CORDS TO BE INSTALLED THROUGHOUT.
- F. CONDUIT SYSTEM SHALL BE CONTINUOUS FROM ALL OUTLETS TO COMMUNICATIONS CABINET REAM AND BUSH CONDUITS.

- FLUORESCENT LAMPS SHALL BE 32 WATT, T8 RAPID START LAMPS WITH A COLOR TEMPERATURE OF 3500°K AND A MINIMUM CRI OF 74. UNLESS NOTED OTHERWISE.
- L. ANY FIXTURES SCRATCHED, BENT, CRACKED OR IN ANY WAY DAMAGED BEFORE ACCEPTANCE BY OWNER SHALL BE REPLACED AT THIS CONTRACTOR'S EXPENSE.
- WORK BY THE OWNER.
- O. WHEREVER LIGHTING SYSTEMS ARE SUPPORTED AND FASTENED TO A CEILING SUSPENSION

MOTOR STARTERS AND CIRCUIT DISCONNECTS

- INDICATED; RATED 240 OR 480 VOLTS, 60 HERTZ; INCORPORATING SPRING ASSISTED, QUICK-MAKE, QUICK-BREAK MECHANISMS. PROVIDE SINGLE PHASE OR THREE PHASE AND WITH SOLID NEUTRAL
- D. AC FRACTIONAL HP MANUAL STARTERS (EQUAL TO SQUARE D CLASS 2510): PROVIDE MANUAL. TYPES, RATINGS AND ELECTRICAL CHARACTERISTICS INDICATED; EQUIP WITH ONE PIECE THERMAL (FOR MANUALLY SPECIFIED HEREIN). PROVIDE STARTER WITH QUICK-MAKE, QUICK-BREAK TRIP
- CHARACTERISTICS; 2 OR 3 POLE, 600 VOLT MAXIMUM WITH NON-REVERSING MAGNETIC STARTERS AS SPECIFIED HEREIN; IN COMMON CUBICLE OR ENCLOSURE WITH FUSIBLE DISCONNECT SWITCH. VISIBLE BLADE, AUTOMATIC CIRCUIT INTERRUPTERS WITH PUSH-TO-TRIP FEATURE AND SEPARATE FUSE CLIPS FOR LARGER NEMA SIZES. FUSE ALL STARTERS WITH DUAL-ELEMENT (TIME-DELAY) FUSES EQUAL TO BUSSMAN FRN/FRS-R. EQUIP DISCONNECT SWITCH WITH CLASS R REJECTION MOUNTING IN MOTOR CONTROL CENTERS AS INDICATED. PROVIDE NEMA 1 ENCLOSURES UNLESS

MOTOR AND EQUIPMENT WIRING

- B. FURNISH, INSTALL AND CONNECT ALL OVER CURRENT AND DISCONNECT MEANS AS REQUIRED BY THE NATIONAL ELECTRICAL CODE.

- COMMUNICATIONS CONDUIT SYSTEM
- B. CONDUIT FOR COMMUNICATIONS WALL OUTLET SHALL BE MINIMUM OF 1" UNLESS SHOWN
- RECEPTACLE PLATES. PROVIDE FLOOR OUTLET WHERE SHOWN ON THE PLANS.

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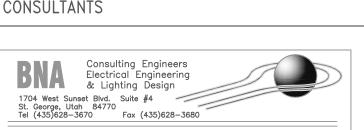
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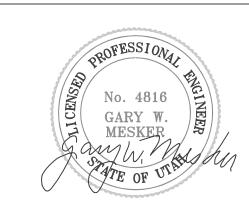
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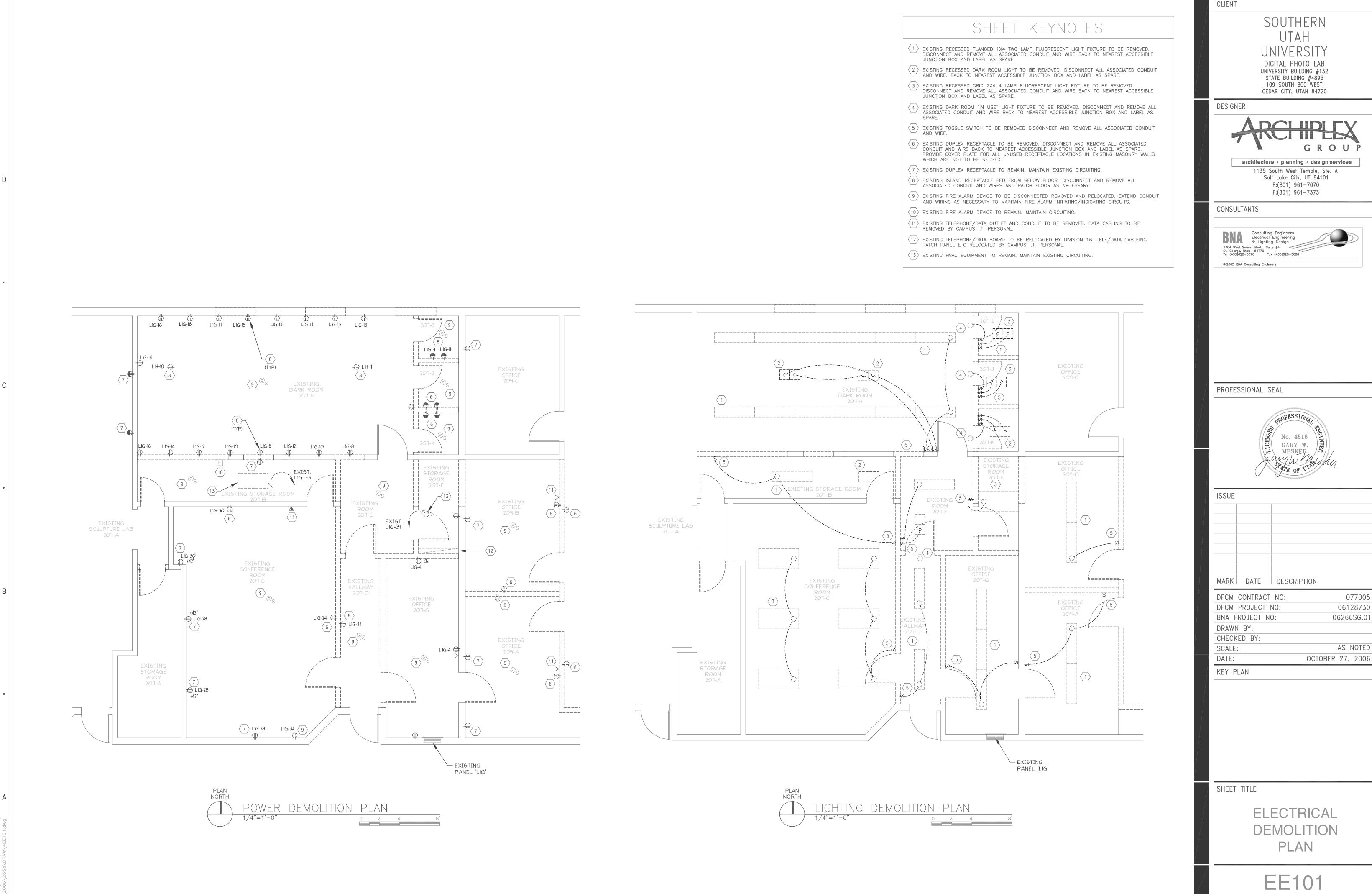
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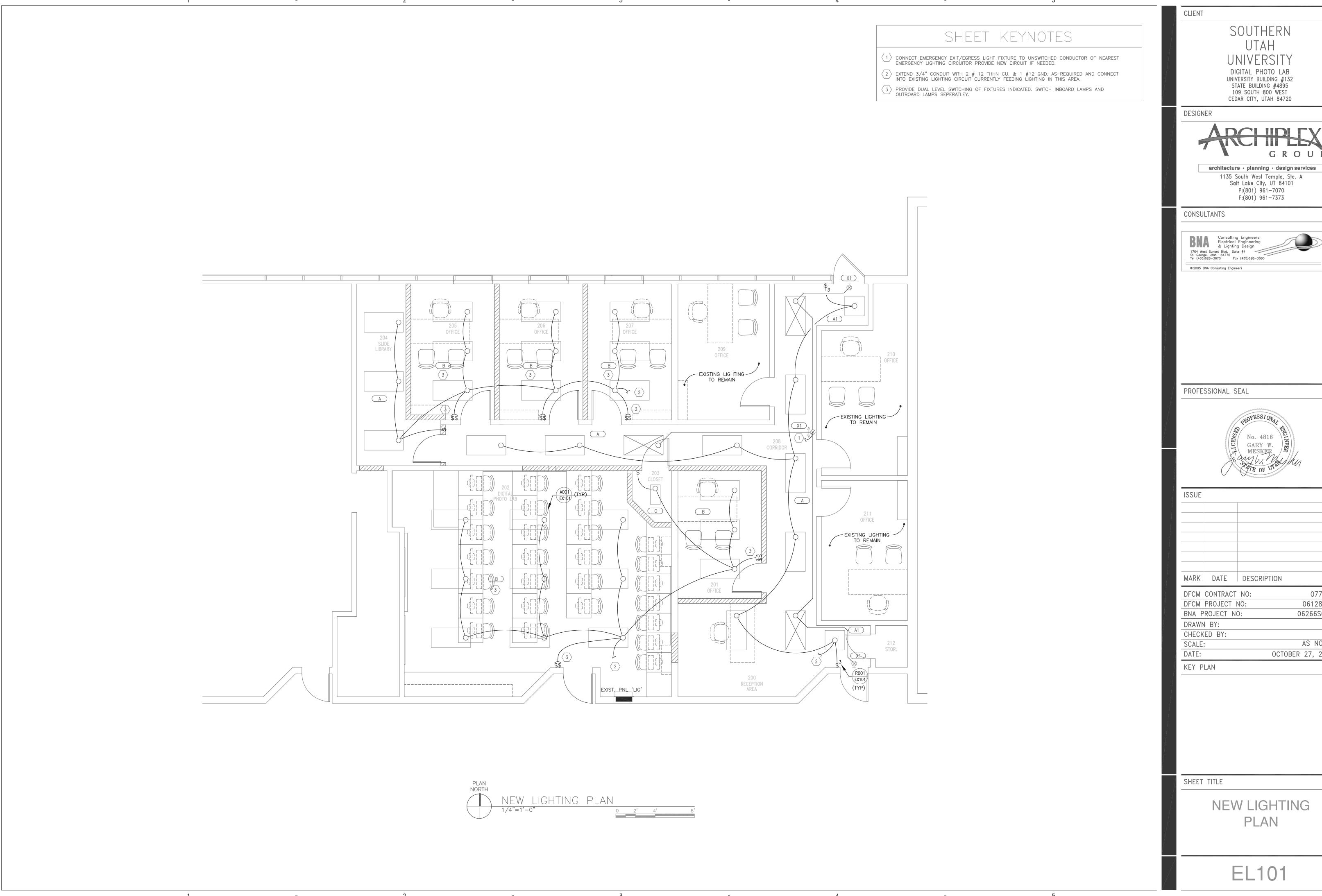
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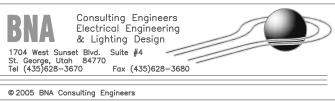
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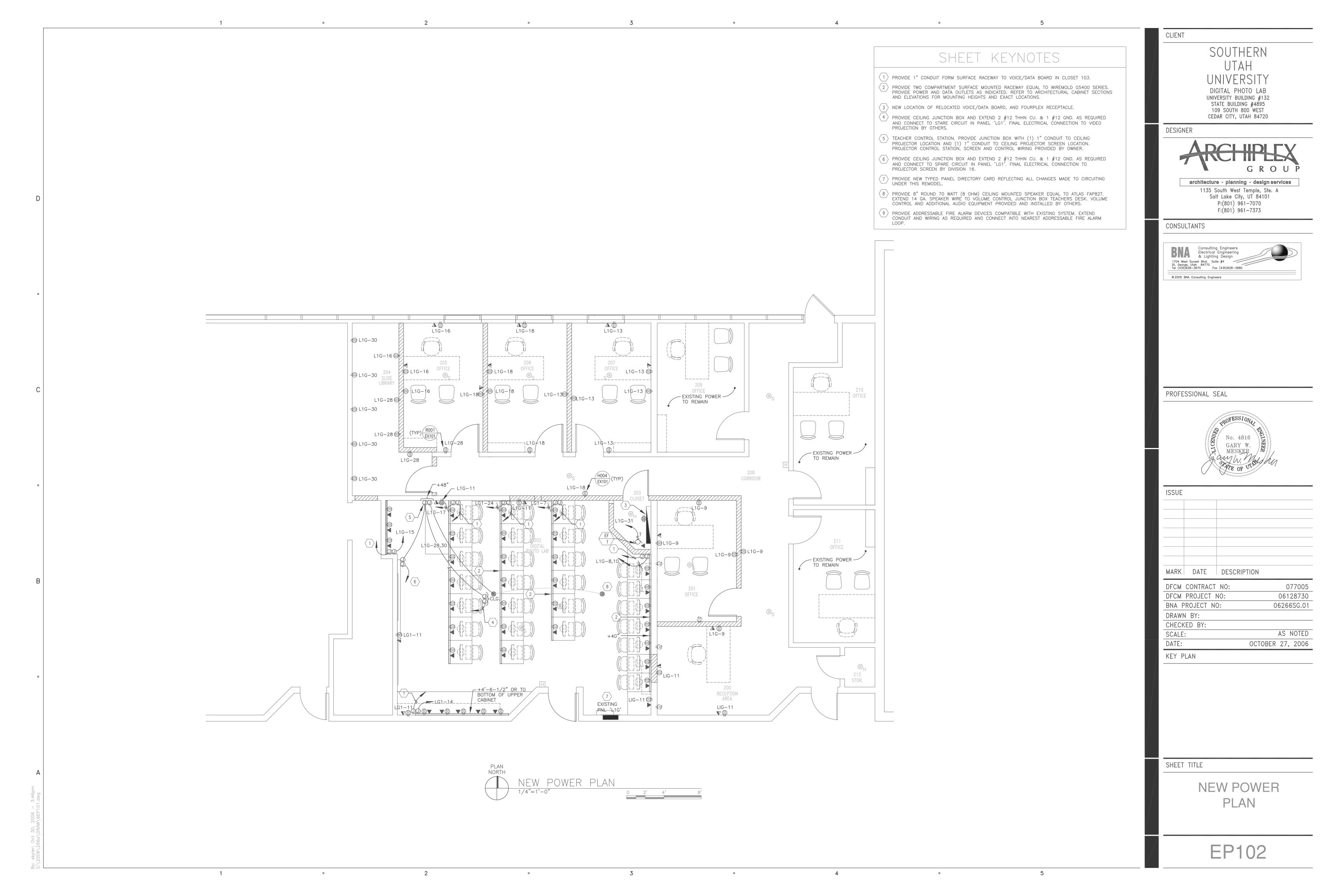


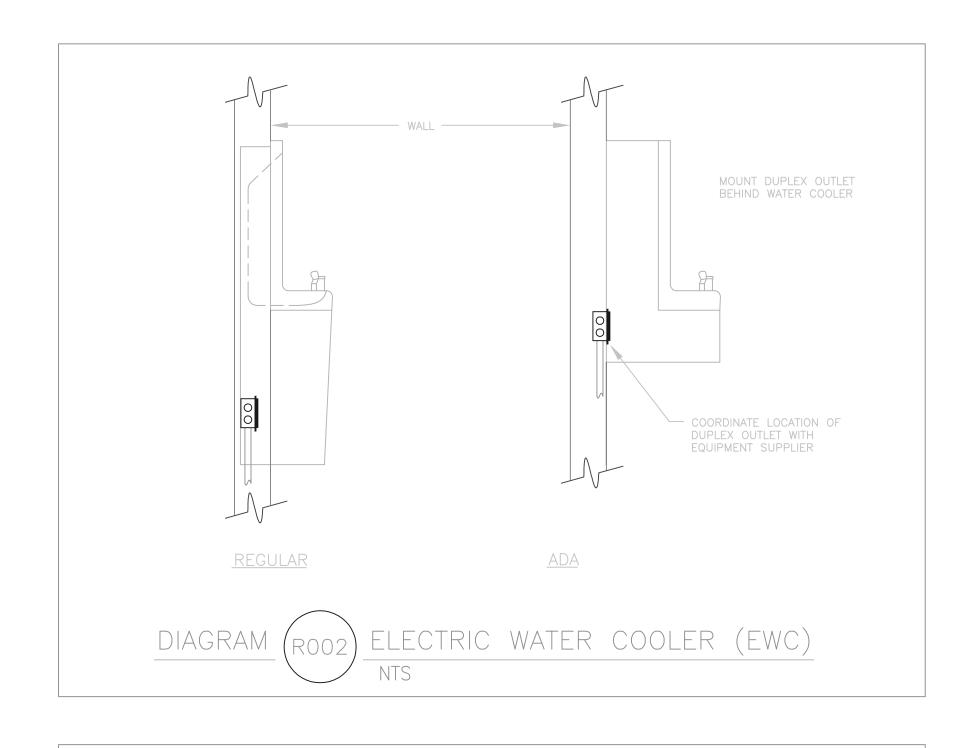


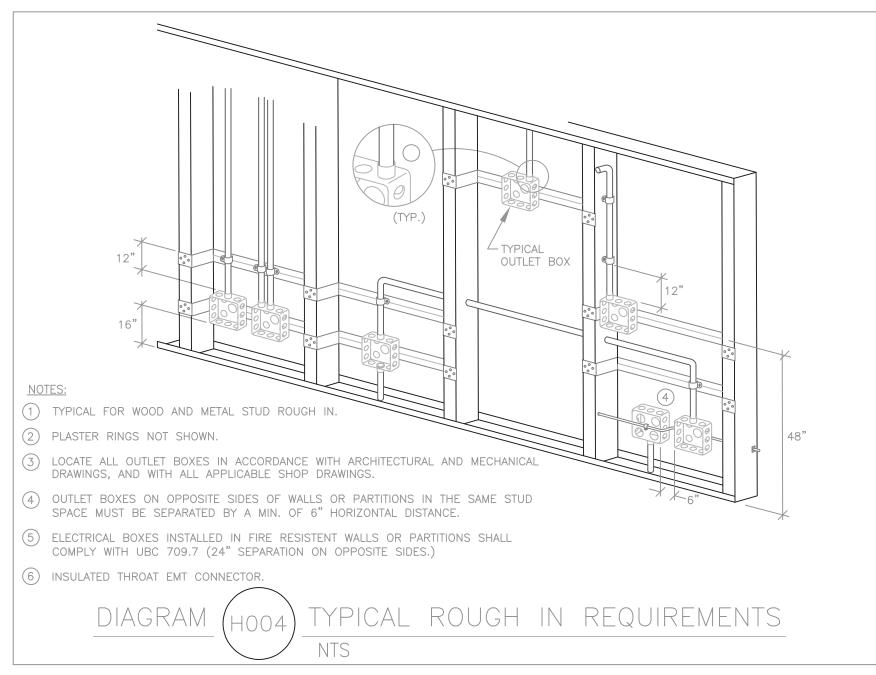


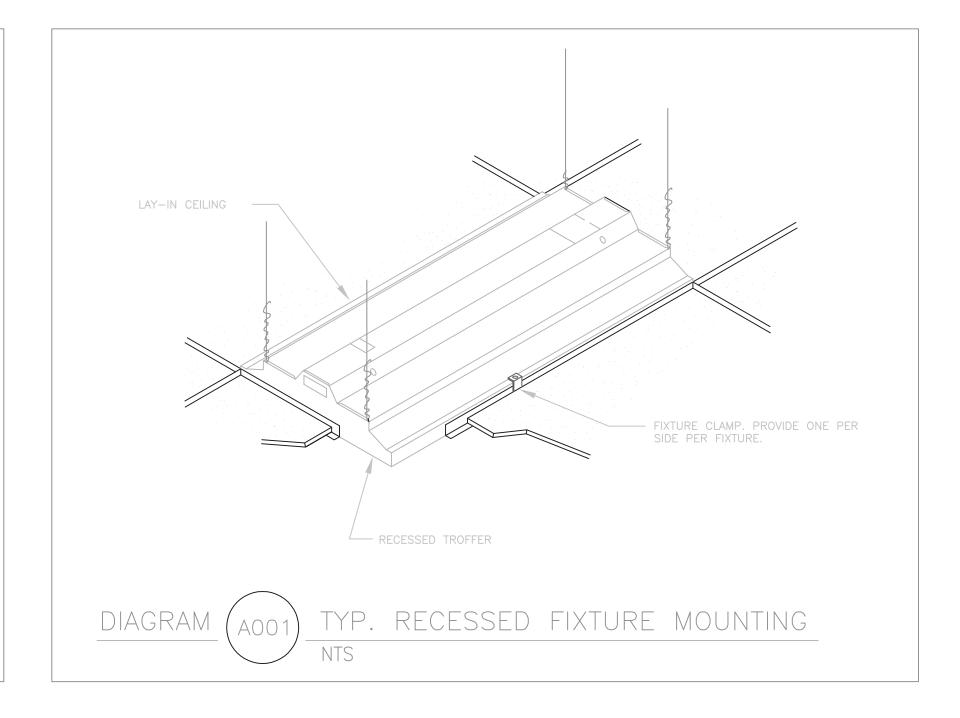
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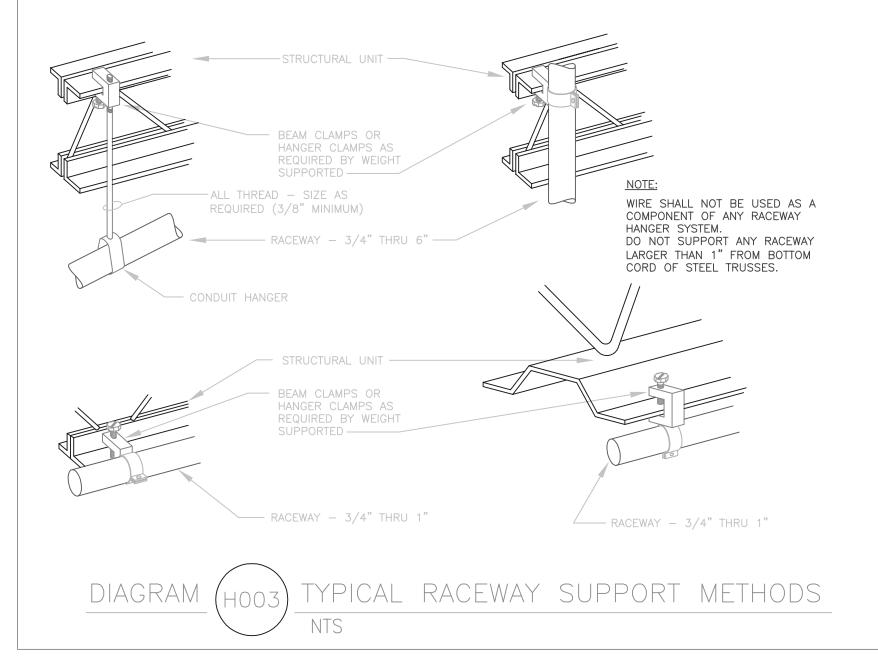
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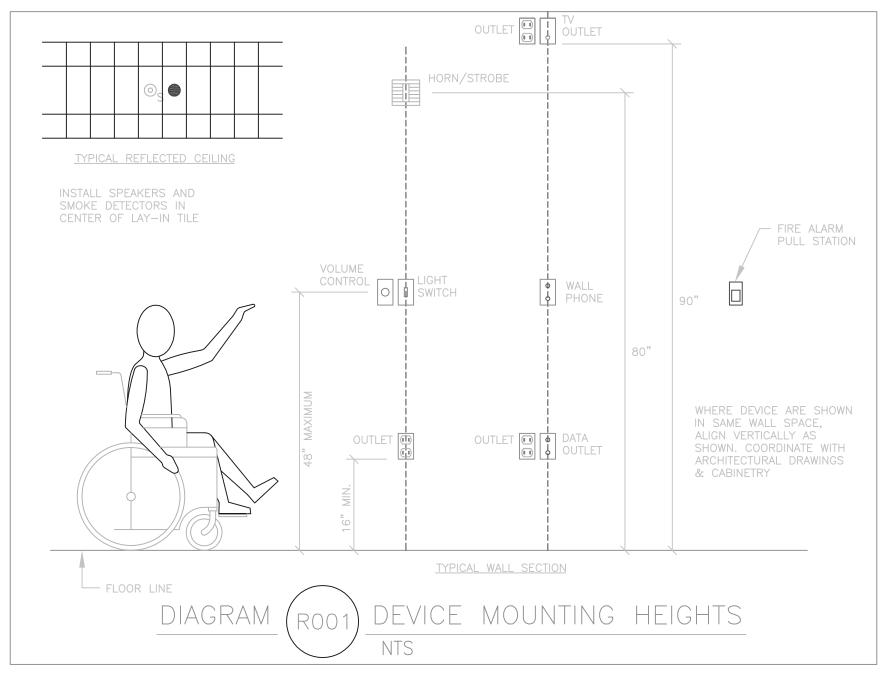


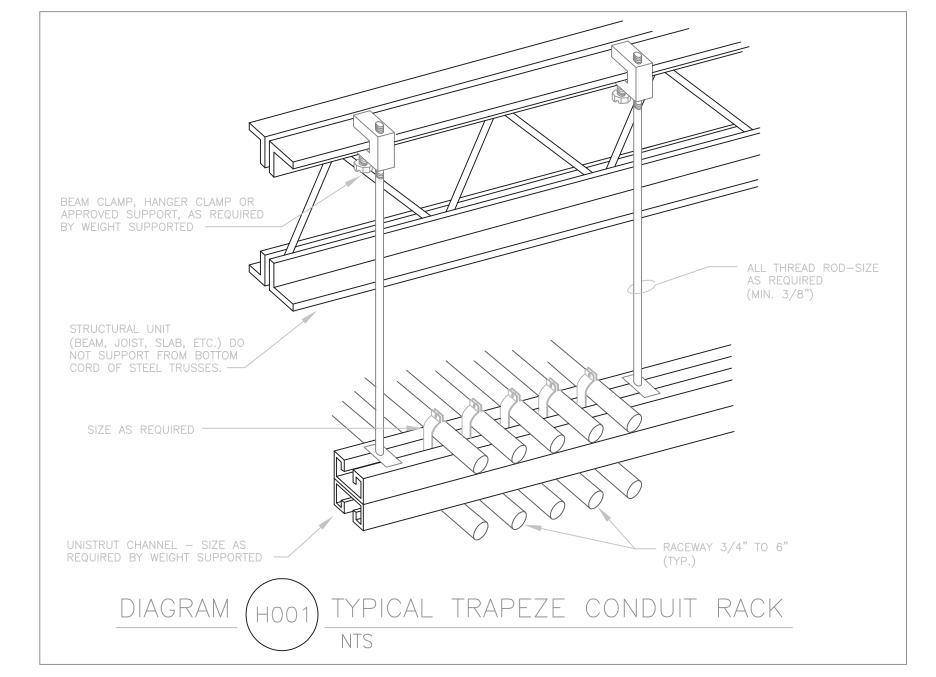


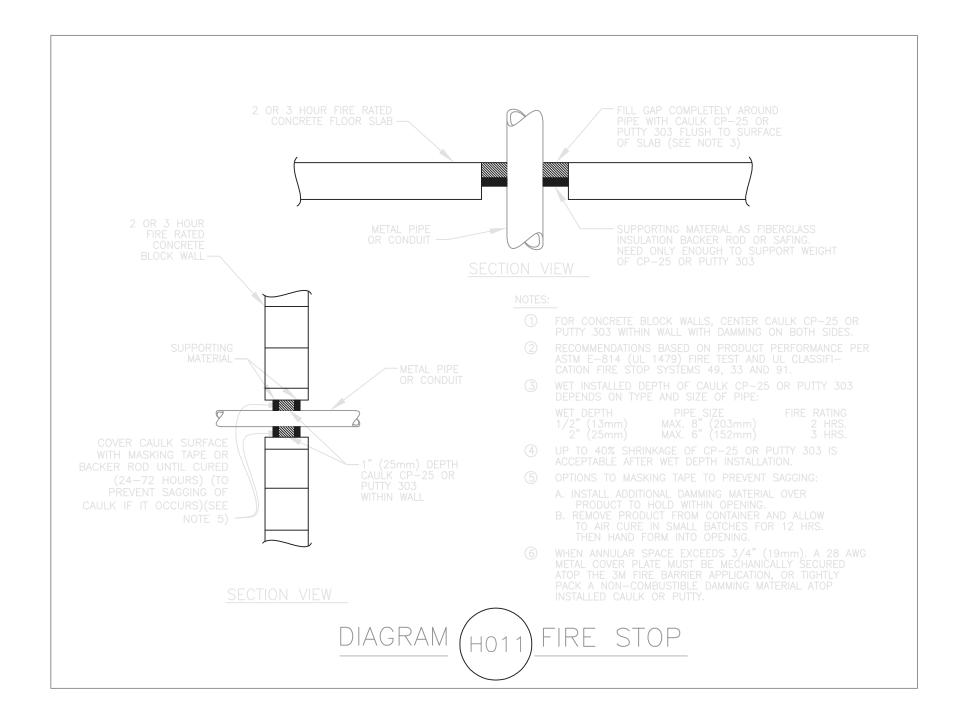












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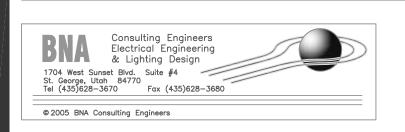
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ELECTRICAL DIAGRAMS

EX101